

INTRADEPARTMENTAL CORRESPONDENCE

May 27, 2015
1.17

TO: The Honorable Board of Police Commissioners

FROM: Chief of Police

SUBJECT: REQUEST FOR APPROVAL OF THE THIRD AMENDMENT TO
CONTRACT NO. C-123332 WITH RAYTHEON JPS COMMUNICATIONS,
INC.

RECOMMENDED ACTIONS

1. That the Board of Police Commissioners (Board) REVIEW and APPROVE the attached Third Amendment to Contract No. C-123332.
2. That the Board TRANSMIT the entire matter to the Mayor's Office and City Council for review and approval.
3. That the Board AUTHORIZE the Chief of Police to execute the Amendment, upon Council and Mayoral approval.

BACKGROUND

On November 21, 2013, the Los Angeles Police Department (LAPD) entered into a five-year Agreement, Contract No. C-123332 with Raytheon JPS Communications, Inc. (Raytheon), to provide professional services to implement Phase II of the Digital In-Car Video System (DICVS). The contract covered the implementation of in-car video in Operations-Central Bureau (OCB). It included all necessary hardware, software, installation, configuration, testing, documentation and training, as well as a five-year warranty on all system components and the operation of the system as a whole. The total cost of the contract was \$7,935,722.41.

DISCUSSION

On May 27, 2014, the First Amendment to the Raytheon contract was executed for the purpose of making technical corrections on two of the attachments in the original Agreement. There were no changes to the Scope of Services of the total compensation allocated under the Agreement.

On February 23, 2015, the Second Amendment to the Raytheon contract was executed for the purpose of making technical corrections to two of the attachments in the First Amendment and to add an Exhibit. There were no changes to the Scope of Services, term, or the total compensation allocated under this Agreement.

Currently, the City of Los Angeles and Raytheon are desirous of executing a Third Amendment to the Agreement to expand the DICVS to the LAPD's West Bureau. Per the City's Fiscal Year 2014-2015 Proposed Budget, Municipal Improvement Corporation of Los Angeles (MICLA) financing program funds in the amount of \$7,938,183.00 are included for Phase III of the DICVS. This amount will pay Raytheon as compensation for the complete and satisfactory performance of the terms of this Agreement and is to be added to the current contract amount of \$7,935,722.41 for a total contract amount of \$15,873,905.41. To allow time for the five-year warranty on this system, the contract is also being extended to November 20, 2022. Implementation will include installation of the DICVS in 366 vehicles in Operations-West Bureau.

If you have any questions, please contact Maggie Goodrich, Chief Information Officer, Information Technology Bureau, at (213) 486-0380.

A handwritten signature in blue ink, appearing to read 'Charlie Beck', with a stylized, looping design.

CHARLIE BECK
Chief of Police

Attachment

**THIRD AMENDMENT TO CITY CONTRACT NO. C-123332
BETWEEN
THE CITY OF LOS ANGELES
AND
RAYTHEON JPS COMMUNICATIONS, INC.**

This **THIRD AMENDMENT** ("Third Amendment") to Los Angeles City Contract No. C-123332 is made and entered into by and between the City of Los Angeles, a municipal corporation (herein referred to as "City"), acting by and through its Police Department ("LAPD"), and Raytheon JPS Communications, Inc., a North Carolina corporation (herein referred to as "Contractor").

WHEREAS, the City and the Contractor have entered into Los Angeles City Contract No. C-123332 (the "Agreement") wherein Contractor agreed to provide professional services to implement a Digital In-Car Video System ("System"); and

WHEREAS, Section 10.1 of the Agreement provides for amendments to the Agreement; and

WHEREAS, the City and the Contractor are desirous of amending the Agreement to expand the System to the LAPD's West Bureau; and

WHEREAS, this Third Amendment is necessary and proper to continue and/or complete certain activities authorized under the Agreement.

NOW, THEREFORE, the City and the Contractor hereby agree that the Agreement be amended as follows:

1. Section 2.1, Term of Agreement

The term of this Agreement shall commence November 21, 2013 and expire on November 20, 2022, subject to the termination provisions of Section 8 of the Agreement.

2. Section 5.1, Compensation and Method of Payment

- A. City shall pay to Contractor as compensation for complete and satisfactory performance of the terms of this Agreement, an amount not to exceed Seven Million Nine Hundred Thirty-Eight Thousand One Hundred Eighty-Three Dollars (\$7,938,183.00), including state and local taxes. Of this amount, Two Hundred Thousand Dollars (\$200,000.00) is designated as Contingency monies to be dispersed at the sole discretion of the LAPD for equipment and services related to this Agreement and pursuant to Section 5.1 (F) below. This amount is to be added to the current contract amount of Seven Million Nine Hundred Thirty-Five Thousand Seven Hundred Twenty-Two Dollars and Forty-One Cents (\$7,935,722.41), for a total contract amount of Fifteen

Million Eight Hundred Seventy-Three Thousand Nine Hundred Five Dollars and Forty-One Cents (\$15,873,905.41).

- E. Of the total amount of compensation included in Section 5.1 (A) above, the City will pay the Contractor for services to be performed, and tasks to be implemented as specified in this Agreement and the attached Statement of Work (Exhibit 1), Deliverable and Payment Schedule – DICVS (Exhibit 2), and West Bureau Cost Breakdown (Exhibit 3), and satisfactorily performed in accordance with the terms of this Agreement, an amount not to exceed Seven Million Seven Hundred Thirty-Eight Thousand One Hundred Eighty-Three Dollars (\$7,738,183.00) inclusive of taxes. The foregoing represents the total compensation to be paid to the Contractor for services to be performed, and tasks to be implemented as specified in this Agreement.
 - F. The difference between the amounts specified in Section 5.1 (A) and Section 5.1 (E) above, Two Hundred Thousand Dollars (\$200,000.00), is designated as Contingency monies to be dispersed at the sole discretion of the City in accordance with Section 10, Amendments and Change Requests, of this Agreement. The City will not be liable for payment of contingency monies unless there is a written Change Request issued by the City.
- 3. Appendix B (Bill of Materials) of Attachment B (Statement of Work) of the Agreement is hereby amended in its entirety and restated as set forth in Appendix B of Exhibit 1 of this Third Amendment, which is attached hereto.
 - 4. Attachment C of the Agreement, which is entitled “Deliverable and Payment Schedule – DICVS,” is hereby amended in its entirety and restated as set forth in Exhibit 2 of this Third Amendment, which is attached hereto.
 - 5. Except as herein amended or modified, all terms and conditions of the Agreement shall remain unchanged and in full force and effect.
 - 6. This Third Amendment may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Third Amendment includes three (3) pages and three (3) Exhibits, which constitute the entire understanding and agreement of the parties.

IN WITNESS THEREOF, the City and the Contractor have caused this Third Amendment to be executed by their respective duly authorized representatives.

THE CITY OF LOS ANGELES

**RAYTHEON JPS COMMUNICATIONS,
INC.**

By: _____
CHARLIE BECK
Chief of Police

By: _____
ARTHUR G. POWERS
Vice President & Corporate Secretary

Date: _____

Date: _____

APPROVED AS TO FORM:

MICHAEL N. FEUER, City Attorney

(2nd Corporate Officer)

By: _____
ANTHONY-PAUL DIAZ
Deputy City Attorney

By: _____
STEVEN M. CHAPLUK
Senior Manager, Contracts

Date: _____

Date: _____

ATTEST:

HOLLY L. WOLCOTT, City Clerk

By: _____
Deputy City Clerk

Date: _____

City Business Tax Registration Certificate (BTRC) Number: 0002689659-0001-5

Internal Revenue Service Taxpayer Identification Number: 56-1621866

Agreement Number: C-123332-3

EXHIBIT 1

STATEMENT OF WORK

**STATEMENT OF WORK
FOR
Raytheon JPS**

**Los Angeles Police Department (LAPD)
Digital In-Car Video (DICV) System
(West Bureau Installation)**

**April 23, 2015
Contract: C-123332
Revision: FINAL**



**Prepared by
Raytheon
JPS Communications
5800 Departure Drive
Raleigh, North Carolina 27616-1933**

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Record of Change

Revision	Date	Author	Description	Pages
DRAFT	08/25/2014	David Chavez	Final Draft Version	All
DRAFT	09/02/2014	David Chavez	Added paragraphs 4.3, 4.9.3, 5.2.6, 5.2.11, 5.2.12, 5.2.13, 5.2.15, 5.2.16, 5.2.18, 5.2.19, 5.2.20 as "N/A" to keep paragraph numbers consistent with previous SOW to facilitate comparison, added paragraph 4.4 which was inadvertently omitted in previous (08/25) draft	Pages 9, 14, 19, 21, 22, 23
DRAFT	10/09/2014	David Chavez	<p>**Note: the changes below to the 10/09/2014 SOW were undone or modified by the changes to the 01/22/2015 SOW</p> <ol style="list-style-type: none"> 1) Change to paragraph 1.1 noting four options within the West Bureau for Vehicle kits and trunk trays 2) Updated Appendix B to denote WB vehicle kit options 3) Updated Appendix C South Bureau Options 4) Updated Appendix D to remove DR Tier 1 and indicate that DR Tier 2 is priced as Option 5b 	Page 1, Appendix B, Appendix C, Appendix D
FINAL DRAFT	01/23/2015	David Chavez	<ol style="list-style-type: none"> 1) Updated based on comments received by LAPD (Sgt. Ligouri) on 01/19/2014 to the 09/02/2014 version of the SOW <ol style="list-style-type: none"> i. Added section 4.2.1, "Network Trade Study" ii. Updated Schedule in Appendix E to include "Network Trade Study" iii. Addressed Sgt. Ligouri comments on pages 1, 3, 4, 5, 11, 12, 16, 20, 25, 26, 80 iv. Note comment by LAPD in section 1.3.1 not addressed because 1.3.1 lists the install sites only and the requested locations are not being installed. iii. Added Trade Study to data requirements in Table-4 2) Updated the BOM in Appendix B to reflect part number changes for the Microphone, GPS, wired reel and removal of the GarrettCom switches. Quantities were also adjusted to reflect the current offer. 3) Removed appendices relating to South Bureau Upgrade (Appendix C) and Disaster Recovery (Appendix D) 4) Added new assumptions regarding 3rd party equipment during vehicle install (assumption 39), and needed network information as part of the trade-study (assumptions 40 and 41) 	<p>- Pages 1, 3, 4 5 (assumptions 1, 4, 18, 25, 27, 30, 32, 37), Assumption 39 removed.</p> <p>- Pages 11, 12, 16, 20, 25, 26, 80</p> <p>- Appendix B</p> <p>- Appendix E</p> <p>-Appendix C, D removed (made reserved)</p> <p>-Added new assumption 39, 40, 41</p>
FINAL DRAFT	02/03/2015	David Chavez	1) Added indication at end of section 4.2.1 that at the conclusion of the trade-study there may be a cost impact as a result of the trade-study findings but this cost is estimated at a maximum of \$200K	7

Revision	Date	Author	Description	Pages
FINAL	03/09/2015	David Chavez	Incorporated all LAPD comments received on 03/06/2015 1) Updated section 1.3.1 by adding address of Recruit Training Center 2) Updated section 1.4 item 18 by fixing typo 3) Updated section 1.4 item 37 by fixing typo 4) Updated section 4.2.1 wording to reflect vehicle upload independent of station 5) Updated section 4.2.1 wording to wireless part of trade-study 6) Added section 4.2.4 as a placeholder for potential effort at the Recruit Training Center 7) Updated section Table 3 to change CDRL nomenclature to be a sequential numbering 8) Updated Appendix B, Table 6 to shown an increase in addition vehicle kits from 90 to 100 to reflect latest LAPD pricing desire 9) Removed "Draft" watermark (All pages)	- Page 10 - Page 3 - Page 5 - Page 6 - Page 7 - Page 10 - Page 18 - Page 39
FINAL	03/23/2015	David Chavez	Based on Further LAPD comments 1) Added two additional potential training addresses to Table 1 and corresponding paragraph 4.2.4 by request 2) Added requirement that five test vehicles be made available by LAPD and vehicles will be configured will be made in time for division integration/test. 3) Inclusion in trade-study of topic of network redundancy with Verizon LTE integrated with Cisco network components	- Pages 2 & 9 - Page 12 (paragraphs 4.5.1 and 4.6.1) - Page 7
FINAL	04/16/2015	David Chavez	LAPD Comments Received 04/15/2015: 1) Updated paragraph 4.2.1, "trade-study" to investigate if car design needs update and feasibility of integration with built-in display 2) Updated paragraphs 4.5.1 and 4.6.1 to address comments regarding potential changes to LAPD vehicles 3) Removed reference to Garrett Comm switch installation 4) Added indicator that display screen can be broken out separately in a future contract modification 5) Removed references to travel in the BOM	- Pages 6 & 7 - Page 12 - Page 40 - Pages 39, 40, 41 - Pages 40, 43, 45
FINAL	04/23/2015	David Chavez	LAPD Comments Received 04/22/2015: 1) Removed reference to "can be broken out separately on a future contract modification" regarding in-car display 2) Added verbiage referencing building early production vehicles if the trade study identifies any changes in the vehicle design/layout 3) Added verbiage referencing need to install Chevy Tahoes BOM Changes: 1) Corrected quantity of Cisco switches needed in wireless BOM and changed support coverage to show 24x7x4 2) Replaced the Dell R520 server with the Dell R530 server as the Dell R520 server is now end-of-life	LAPD Comments: - Pages 39, 40, 41 - Pages 6, 7, 12 - Pages 6, 7 BOM update: - Page 42 - Page 44
FINAL	05/04/2015	David Chavez	LAPD Comments Received 05/04/2015: 1) Incorrect address at Valley Data Center 2) Modified assumption #1 to reflect potential change based on trade-study Other: 1) Removed proprietary marking on front cover to facilitate easier document exchange.	LAPD Comments: - Page 2 - Page 3 Other: - Front page

1 INTRODUCTION

1.1 Executive Summary

This Statement of Work (SOW) defines the Digital In-Car Video System (DICVS) equipment, system design, system installation, and support services as described in the Proposal submitted by Raytheon JPS Communications Inc. (Raytheon) originally in response to RFP No. 11-567-004 issued by the Los Angeles Police Department (LAPD).

This SOW covers the LAPD West Bureau design and installation including additional Vehicle Kits, a network trade-study to be performed at program start, and an option for additional vehicle kits.

Raytheon (the "Contractor") will provide LAPD a turnkey System per this SOW, which includes the equipment, system design, installation, on-site support, and training (the "Project"). All Tasks performed by Raytheon and the City of Los Angeles Police Department are defined within this document. As referred to in this SOW, the acronym DICVS, ICV, or System refers to the project digital audio, video recording devices, mode of transfer, and their related back-end storage solution.

The Contractor is responsible for products and services as set forth in this SOW, and commits to all entries provided herein.

The scope of the project is the procurement and implementation services for the deployment of a digital in-car video surveillance solution (called "Services"), included is a comprehensive system trade-study which will be done up front in the schedule. Note that system changes as a result of the trade-study are not currently part of the scope of effort and would require a change order. This Statement of Work addresses the effort the Raytheon Team will use to provide all hardware, software, configuration, installation designs, documentation, testing, and training required for successful implementation of the project. Raytheon's architecture provides Digital In-Car Video Recording with both wired and wireless upload data transfer. Included in the system is the in-car equipment, the back end video storage and management system, removable media, and wired and wireless upload (including LAN connection between the wireless to the back end system). All communication uses a secured network as described herein. The system provides the following:

- Three (3) different video upload methods for maximum flexibility and fail-safe operation.
 1. Wireless: The COBAN wireless upload method uses 802.11 a/g/n protocols for high speed upload
 2. Wired: The COBAN wired upload method uses 100 base-T or Gigabit Ethernet network for fast video transfer
 3. Removable media data transfer using solid-state drives. This method uploads videos via a high-speed USB 2.0 interface.
- A flexible and scalable video storage system, including customized implementations for optimal operation at City Hall East (CHE) and at outlying areas, including both primary and extended storage. Users with the necessary authorization can search for and review any video from any department workstation.
- An automated policy-based Video Management Solution.

Raytheon is solely responsible for completion of the work described herein and compliance with the terms hereof and coordinating any involvement of Raytheon subcontractors who may be engaged to assist Raytheon in accomplishing the work described herein.

1.2 Document Organization

This Statement of Work addresses key items necessary for successful project completion and sign off. The SOW includes the work, tasks, or services to be performed (Scope), the equipment that will be provided (Appendix B), the systems technical performance (Requirements), when it should be done (Schedule) and the documents and artifacts provided with the system (Deliverables). As such, the SOW has been organized as follows:

Chapter 1	Introduction
Chapter 2	Applicable Documents
Chapter 3	Requirements
Chapter 4	Scope

Chapter 5	Deliverables
Chapter 6	LAPD Responsibilities
Appendix A	System Requirements
Appendix B	West Bureau Bill of Material (BOM)
Appendix C	Reserved
Appendix D	Reserved
Appendix E	West Bureau Notional Schedule
Appendix F	Limited Warranty Statements
Appendix G	COBAN Software License Statement
Appendix H	Equipment Safety Statement
Appendix I	Required West Bureau Networking Information
Appendix J	Acronyms

1.3 Locations

1.3.1 West Bureau

The LAPD West Bureau consists of five (5) divisions and one (1) traffic division as follows. Note that the Traffic Division is located at the Wilshire Division and does not require its own back office infrastructure.

Table 1, West Bureau Locations

Division	Address
Hollywood	1358 North Wilcox Avenue Hollywood, CA 90028
Olympic	1130 South Vermont Avenue Los Angeles, CA 90006
Pacific	12312 Culver Boulevard Los Angeles, CA 90066
West Los Angeles	1663 Butler Avenue Los Angeles, CA 90025
Wilshire / West Traffic	4861 Venice Boulevard Los Angeles, CA 90019
Recruit Training Center ⁽¹⁾	5651 W Manchester Blvd Los Angeles, CA 90045
Elysian Park Police Academy ⁽¹⁾	1880 N. Academy Drive, Los Angeles, CA 90012
Davis Training Facility ⁽¹⁾	12001 Blucher Avenue Granada Hills, CA 91344

(1) Not part of base West Bureau effort; See paragraph 4.2.4

1.3.2 Valley Bureau Data Center (Disaster Recovery Only)

Table 2, Valley Bureau Data Center Location

Division	Address
Valley Data Center	23001 Roscoe Blvd, West Hills, CA 91304

1.4 Assumptions

- Vehicle HW installation is based on the designs that were approved during the Central Bureau phase of the program and no further design nor pilot testing is included, however, the "trade-study" includes

- analysis on new model year vehicles and in-built display and may result in a contract change to incorporate changes if identified.
2. Currently, the back office and wireless system design and equipment are the same as the Central Bureau design. Changes to the design may be recommended by the trade-study which may or may not impact the overall cost, cost impacts will be included as part of the trade study.
 3. It is expected that the final division and system test procedures will be identical to those of Central Bureau
 4. LAPD will provide the base network scheme as indicated in the Appendix I: Required West Bureau Networking Information
 5. The Bill of Materials (BOM) was developed at a high fidelity recent site-survey and Raytheon will procure some items such as switches, racks, and trunk-trays immediately after contract award. Other BOM items will be procured immediately after the CDR.
 6. LAPD will provide correct and up-to-date Blueprints/Bluelines, HVAC, Electrical and Civil drawings as needed by the project kick-off meeting (no later than division installation).
 7. Blueprints and appropriate drawings will correctly show the location of all water pipes and cables. As a result, any drilling will not penetrate existing water line, electrical or communications cabling.
 8. LAPD will permit Contractor, as needed, to run cables, drill through the wall penetrations, and run new power feeds. (Note: Parking lot or other excavation is not needed and not included in the proposal)
 9. LAPD will permit Contractor, as needed, to run overhead data and power cables between wired upload stations, 802.11 Wireless Access Points and the precinct main building.
 10. Raytheon assumes that provided blueprints are accurate and any damage incurred as a result of bad blueprints is not Raytheon's responsibility.
 11. Any cost overruns or schedule delays due to incorrect information about existing infrastructure will be the responsibility of the LAPD.
 12. LAPD will dedicate access to, and time from City and LAPD staff as required, to include appropriate access to LAPD – IT and networking engineers.
 13. LAPD will approve all schedules and will not hold the Contractor responsible for any schedule changes due to actions of the LAPD.
 14. The approval process will be a clearly defined, with a listing provided of the persons appointed to sign off any approvals.
 15. The LAPD will assist and restrict the public and worker access to work areas as work is conducted, to prevent injury to these people.
 16. The city will provide required escorts when needed to perform work in secure areas.
 17. During the Critical Design Review, there will be a single point of contact assigned by LAPD for each major portion of the system (to be defined during the system design review). This LAPD single point of contact has the responsibility of working with all necessary LAPD and City personnel to achieve alignment, listing of any remaining issues, and signoff.
 18. The LAPD and or city will provide a listing of any special requirements or directives such as special escort required at all times (i.e. Metro Detention Center) or different location for vehicle install for each aspect of the system deployment before work on that aspect is started.
 19. LAPD will allow use of any existing cableways and conduits for this project, if they have ample room for the additional cables.
 20. LAPD will permit access to the LAPD ITA backbone network during non-peak hours to conduct testing and upgrades.
 21. There will be ample power to circuit breaker boxes and power feeder/distribution boxes feeding equipment rooms or locations outside for wired and wireless uploads. LAPD understands there may need to be new local power runs from these existing power distribution boxes to add new outlets for DICVS back end equipment.
 22. The Contractor and LAPD will jointly determine any project delays that are the result of an act of God, and these delays may result in a new schedule with new milestones.
 23. All vehicles for each phase must be available as needed to install the new video system. Any project schedule delays caused by not having the vehicles available when needed will be the responsibility of the LAPD.
 24. All vehicles must be in proper condition to install the new video system.
 25. It is Raytheon's assumption the LAPD current infrastructure has the available capacity to handle the transfer of the in-car-video data in all aspects other than the upload infrastructure that the Raytheon team

- provides. Note as part of the trade-study a bandwidth analysis is to be provided which will add detail to this assumption and will allow LAPD to procure more bandwidth if needed.
26. Bandwidth and capacity estimates are considered for approximately 1500 vehicles, recording at Standard Definition, within the guidelines/specifications in Phase 1 (South Bureau) and Phase 2(Central Bureau) implementation. Average amount of video per vehicle is estimated by the annual average over 2013 across South Bureau.
 27. LAPD to provide network connectivity at least one management port and one data port into the City Infrastructure and the bandwidth shall be no less than 1 GB/sec. If full network redundancy is required the city must provide TWO management ports and TWO data ports per site. Note that the proposed trade study-is not expected to impact this assumption as full network redundancy will require two data and management ports.
 28. Any Customer Furnished Equipment (CFE) (e.g. a network connection, access to facility space) that is not provided on time, based on the IMS, is eligible for an equitable adjustment in price and/or schedule.
 29. Delays due to bad weather or other environmental factors will enable adjustment to the schedule.
 30. The LAPD shall provide updates to the user databases in the existing LAPD Novell eDirectory as required to integrate the new West Bureau equipment
 31. LAPD to allow use of the available existing ITA fiber optic lines at all locations. It is expected to use existing utilized fiber at the following locations:
 - a. West Los Angeles Division: (2) MM pairs between MDF and Communications Shelter at MTD facility
 - b. West Los Angeles Division: (2) MM pairs between MDF and 2nd Floor IDF
 - c. Pacific Division: (1) MM pair between MDF and MTD facility
 - d. Wilshire Division: (1) MM pair between MDF and MTD facility
 - e. Olympic Division: (1) MM pair between MDF and MTD facility
 32. Some of the sites have IDF rack enclosures which are not deep enough to support the DICV C3750x switches therefore new racks will be installed and the existing ITA equipment will be reinstalled into the new racks. In order to replace the existing racks ITA assistance will be required to move ITA existing equipment to the new rack as follows:
 - a. Remove and replace existing IDF Rack Enclosures in Pacific Division and Wilshire Division MTD facilities to accommodate (1) new network switch at each location
 - b. Install (1) new network switch in existing 2-post rack inside Communication Shelter at West Los Angeles Division MTD Facility
 - c. Install additional IDF Rack Enclosure in Narcotics Facility at Hollywood Division to support (1) new network switch
 - d. Install additional IDF Rack Enclosure in 2nd Floor equipment room at West Los Angeles Division to support redundant network switches
 - e. Install new IDF Rack Enclosure in the lower floor of Wilshire Division parking structure to support redundant network switches
 - f. Install redundant network switches in existing 2-post wall-mounted rack inside MTD Facility at Olympic Division
 33. As part of its West Bureau site-survey Raytheon identified that the only fiber optic lines that need to be separately installed are located at the Hollywood Division between the MDF and MDT and at the Wilshire Division between the MDF and the IDF located in the parking garage.
 34. At the Hollywood Division LAPD shall provide vehicle traffic management when the fiber optic line is being installed between the MDF and the MDT
 35. At the Hollywood Division LAPD shall provide city assistance (general services) to lift the man hole cover when the fiber optic line is being installed between the MDF and the MDT
 36. At the Hollywood Division LAPD shall provide access to the light pole in the main parking lot in order that a Wireless Access Point can be installed on it.
 37. LAPD shall provide ITA assistance in connecting the MDF switched (Cisco 3750) to the city infrastructure. The assistance shall include not only activating the Cities network ports but also in specifying providing city guidelines for security and connectivity beyond the basic functional configuration provided by Raytheon.
 38. LAPD shall provide ITD assistance for LAPD networking requirements such as LDAP configuration, Naming assignments, and Authentication.

39. The Raytheon team will not remove or relocate 3rd party product on the vehicle without prior written consent from LAPD.
40. LAPD shall provide the City of Los Angeles Network Topology drawings at Contract Award to facilitate the discovery phase of the trade-study.
41. LAPD shall provide the Network Switch configurations for the South Bureau at Contract Award to facilitate the discovery phase of the trade-study.

1.5 Exclusions

1. Contractor will not be responsible for any delays that incur due to actions by the city or LAPD's approval process.
2. Contractor is not responsible for modifications to existing system components or infrastructure not specifically called out in this SOW.
3. Contractor offer does not assume any cost for LAPD personnel on site as required while performing work. This will be the sole responsibility of the LAPD.
4. Contractor reserves the right to stop work at any given time if safety of people or equipment is in question.
5. Contractor is not responsible to repair or fix any existing problems (IP infrastructure, electrical, civil, structural or plumbing) that are not part of this Proposal.

2 APPLICABLE DOCUMENTS

The Contractor shall comply with the requirements set forth in the SOW. In the event of a conflict between this SOW and any other document, the precedence specified in section 13.3 of the base contract shall apply. All references to appendices are for appendices of this document.

3 REQUIREMENTS

The requirements are found in Appendix A of this document and are identical to the requirements implemented in the Central Bureau Design and installation. Any design changes impacted by the network trade-study have not been priced out as part of this proposal and are not indicated in this SOW.

The system requirements are managed and maintained in the LAPD ICV Requirements Traceability Matrix (RTM) listed in Appendix A of this SOW. Requirements have been organized into logical groups with appropriate headers. The RTM is a compilation of requirements found in the RFP Systems Features Checklist (RFP Appendix A) and the RFP Scope of Services (RFP Section 2). Raytheon is wholly responsible for providing a DICVS solution that meets these requirements.

4 SCOPE

This Raytheon SOW provides information related to the West Bureau as listed below:

West Bureau

- 5 Divisions with 351 cars

Raytheon will provide the following tasks and services as detailed below. Each task has a description, a list of deliverables, and completion criteria.

1. System Engineering
 - a. System Design
 - b. System "As Built" & Configuration Documentation
2. Division Infrastructure Installation
 - a. Wireless and Wired Data Transfer Installation
 - b. Back Office Server/Storage/Switch Implementation
3. Vehicle System Installation
 - a. Vehicle Installation / Acceptance
4. Division System Testing
5. Training Services
6. Project Management
 - a. Weekly Status Meeting
 - b. Program Management Review

- c. Project Scheduling
- d. Supply Chain Management
- e. Subcontract Management
7. Project Events
 - a. Project Kickoff
 - b. Critical Design Review
 - c. Division Test Readiness Review
 - d. System Test Readiness Review
 - e. Final System Signoff Review
8. Final System Acceptance
9. Follow-on System Service
10. Warranty

Note that most of the activities listed above are singular in nature (only to be done once) however, items 2 through 5 are performed once for each division.

4.1 Completion Criteria

Completion Criteria for each individual task are set out in this SOW. Final acceptance criteria is established in the Final System Acceptance Testing and the Final Sign Off Review, and may be further defined by mutual agreement.

Raytheon shall have fulfilled its obligation under this Statement of Work when any of the following first occurs:

- Raytheon accomplishes the Raytheon tasks and services described in this section (4) and all requirements in the RTM have been completed, and the Final System Acceptance has been approved by LAPD.
- City of Los Angeles Police Department notifies Raytheon in writing, that further services are not required

4.2 System Engineering

System Engineering is an activity that is performed at the beginning of the project. The focus of System Engineering is to collect and document requirements, create architecture, and flesh out a design that is ready for implementation.

4.2.1 Trade-Study [[CDRL 10](#), [CDRL 05](#)]

The trade-study will provide the LAPD a Raytheon assessment of the current system implementation along with optimization recommendations in alignment with industry best-practices. A recommendation will be provided to keep the existing network and backhaul architecture in place (with configuration modifications to improve security and redundancy) or to overhaul the architecture to improve the network. As a system goal LAPD would like the system to be improved in the following areas including analysis on new model year vehicles:

- Reduce the number of servers
- Have the ability for any vehicle to upload at any station without user input.
- Eliminate single points of failure including the City Hall East to Valley Data Center
- Determine the feasibility and impact of using the vehicle built in display on newer model vehicles
- Determine if an installation design update and early production is needed for new vehicle types

The areas of focus for the trade study will be as follows:

1. Topology
2. Redundancy, including investigation of Verizon LTE integrated with Cisco switch
3. Bandwidth use
4. Security
5. Network Switch Configuration
6. Application use
7. Remote/Automated Management (i.e. SNMP based)
8. Vehicle upload to any station without user input
9. Improvements to wireless infrastructure focusing on optimization in noisy environments
10. Feasibility and impact of using vehicle built-in display on newer model vehicles

11. Determine if a an installation design update is needed for new model year Dodge Chargers, Ford Interceptors, and existing Chevrolet Tahoes

Data required at beginning of study:

1. LA City Network topology drawings (to be provided by LAPD at contract award)
2. Network switch configurations (Central Bureau Existing and South Bureau to be provided by LAPD)
3. Application path (IP addresses, ports, protocols) (COBAN develop during week one)
4. 24 hour bandwidth capture of operational system (Raytheon, LAPD provide access)
5. Wiring diagrams for new vehicle types including interface guide for built in display

This trade study/analysis is limited to the components provided by Raytheon/Coban for the LAPD Digital In Car Video System and will only reference the LA City network as a connection point (i.e. no recommendations will be made regarding the LA City infrastructure).

As the findings of the trade-study will not be known until the study is completed there may be an associated cost impact if LAPD accepts the recommendations of the study. The maximum cost impact expected to be caused by the trade study is estimated to be approximately \$200,000; this estimate is provided for informational purposes only, and does not constitute a firm quote or not-to-exceed pricing.

Deliverables:

- The written deliverable for the trade-study will be a formal white paper and PowerPoint briefing [\[CDRL 10\]](#)

Meetings:

- There will be a debrief to LAPD [\[CDRL 05\]](#) to discuss the findings of the trade-study

4.2.2 System Design

Description: Raytheon will work with a team of selected staff from the LAPD and Information Technology Agency (ITA), as appropriate; in all technical and operational issues of the design, integration, and test of the DICVS wireless network, hardware, and software. This scope is divided into the subtasks below.

Deliverables:

- DICVS Design/Configuration Document [\(CDRL 09\)](#)
- DICVS System Test Plan / Procedure / Results [\(CDRL 11 \)](#)
- DICVS Division Test Plan / Procedure / Results [\(CDRL 12\)](#)

Completion Criteria: This task is complete when the final versions of the aforementioned deliverables are approved by the LAPD.

4.2.2.1 Wired and Wireless Requirements and Design

Description: Raytheon will document the networking requirements for the West Bureau in the Design Document. The focus of this task is to document the assumptions, requirements, and design of the exterior wireless and hardware infrastructure that will transport the digital video from the point of capture (in the car) to the server environment where it will be managed locally and then transferred to the City Hall East.

Assumptions regarding wireless solution:

1. Raytheon will utilize the unlicensed 802.11a/g/n spectrum to facilitate wireless uploads.
2. Wireless system performance may be degraded by other nearby users of the unlicensed 2.4 GHz and 5 GHz spectrum and by obstacles that block line-of-sight between the fixed antennas and antennas located in the vehicles.
3. The FCC requires that users in the 5.4 GHz spectrum incorporate Dynamic Frequency Selection (DFS) to ensure that we avoid 5.4 GHz channels containing radar by an Access Point. This could affect aggregate video upload throughput if DFS is activated during times of maximum simultaneous uploads at a given location.

4. Wireless access points will be mounted inside garages or outside buildings. Access points have been chosen that are resistant to the environment and will be placed in areas that minimize the likelihood of equipment tampering.
5. Outdoor antennas (not inside garages) extend to their mounting points via coaxial antenna cable. Equipment has been chosen with in-built lightning arrestor capability and thus an Earth ground is not required.
6. Raytheon will be responsible for deploying the conduit, Cat5e cable, electrical power from the point of common exit from the interior to exterior wall of all West Bureau locations. Raytheon will also be responsible for the ground connection. Raytheon will mount the wired connections to the exterior wall or other determined mounting location.
7. Raytheon will install the access points, antennas, antenna cables and lightning arresters and connect to the Cat5e cable.
8. Supplemental MTD Maintenance Garage and gas pump wireless access point coverage is not required except as indicated by the Site Survey, however, residual coverage from the parking structures is expected to be adequate but performance requirements for residual coverage is not guaranteed.

4.2.2.2 Wireless and Hardware LAN Site Survey

Note the site survey and RF Scan has already been completed for the West Bureau and the findings will be noted in the Draft Design Document ([CDRL 09](#)) presented at program Kick-off.

Description: The purpose of this activity is to review and document the exterior network requirements for the implementation and utilization of wireless and hardwire LAN technologies at five (5) LAPD Division offices including supporting infrastructure at City Hall East. Raytheon is to develop a plan for the exterior site survey verification and system design activities at each of the five (5) locations. During this activity, Raytheon will perform the following tasks relating to the outside facilities and structures at each of these five (5) sites:

1. Obtain available building site documentation from LAPD
2. Assess wireless and hardwire LAN design objectives and goals and develop an understanding of:
 - a. Wireless and hardwire network strategy and requirements
 - b. Areas requiring wireless coverage
 - c. Areas requiring hardwire access and coverage
 - d. Security requirements within the scope of the guidelines laid out in the RFP (including encryption and authentication requirements)
 - e. End-user application types and usage characteristics:
 - i. Wireless video transfer only
 - f. Equipment mounting and aesthetic considerations
 - g. IP addressing scheme
 - h. Wireless and hardwire network management strategy
 - i. Future growth requirements and network build out time frames
3. Assess building construction materials, floor layouts and floor contents (fixtures, furniture, etc.) along with any planned changes to current environment; Document findings.
4. Perform RF site surveys at the five (5) division offices to determine access point and antenna types, configurations and mounting locations necessary to provide required wireless services
5. Identify existing equipment installations and implications for proposed wireless network equipment (available space, interference, mounting requirements)
6. Identify suitable locations for mounting of Ethernet reels for hardwire uploads
7. Identify locations for mounting of Ethernet switches for connection to wired LAN in each division office
8. Perform an RF scan of 2.4000 – 2.4835GHZ and 5.000 – 5.825GHz RF ranges in the locations, which are designated to receive wireless coverage in order to document potential sources of interference.
9. Document requirements for provisioning data and power to access points and hardwire Ethernet reels via power-over-Ethernet.
10. Document requirements for provisioning 120VAC to climate controlled access point enclosures.
11. Identify special and/or unusual environmental conditions (heat, ventilation, air conditioning, humidity, etc.) that may impact equipment performance and provide photographs of unusual situations relating to AP placement to aid in installation

12. Verify fitness of structures for mounting equipment (ceiling, post, wall materials, etc.)
13. Mark locations for mounting of access points and antennas
14. Determine location of any roof or wall penetrations that will be required
15. Provide itemized listings of cabling, structure modifications or enhancements at each of the sites to ensure that they meet the requirements for the Wireless and Hardwire LAN installation.
16. Document survey results in the Design Document

4.2.2.3 Wireless and LAN Design

Description: The objective of this task is to develop the design detail required for implementation of wireless and LAN's in the five (5) West Bureau LAPD division offices to support wireless and hardwire transfer of video data.

The major sub tasks addressed are:

1. Define system performance criteria based on system requirements
2. Define access point and antenna types, quantities, configurations and locations required for the provisioning of wireless video transfer
3. Define switch configurations
4. Define Wireless LAN Controller configurations
5. Define Ethernet reel types, quantities, housing and locations required for the provisioning of hardwire video transfer
6. Develop equipment list
7. Develop documentation showing areas of wireless coverage
8. Develop IP addressing scheme
9. Develop pre-installation cabling and infrastructure site preparation requirements
10. Develop installation plan
11. Develop system test plan

IEEE 802.11b wireless mode will be disabled to avoid interference and degrading the wireless operation. Only IEEE 802.11a, IEEE 802.11g and IEEE 802.11n wireless modes shall be active.

4.2.3 System Configuration

Description: Raytheon shall load and configure all hardware and software used in its subsystems. Raytheon will provide a base configuration for the switches that interface directly with the City of Los Angeles network. If there is specific security or other requirements that are required by the City of Los Angeles to establish connection then those requirements must be provided to Raytheon by the kick-off of the program. It is also expected that the cities ITA group will participate in the final configuration and testing of these switches. As a base LAPD must provide the required IP Address Scheme and VLAN as indicated in "Appendix I: Required West Bureau Networking Information"

Software revision shall be the same for all like devices. Contractor will provide all site-specific software and/or configuration data files as needed to meet Contractor's requirements at each LAPD site to include at a minimum the following:

- Site-specific configuration parameters
- Detailed system configuration narratives
- Default parameters
- Actions
- Descriptors
- Device and component addresses and locations

Deliverables:

- DICVS System Configuration Manual
- Manufacturer Owner Manual (hardcopy only)

Completion Criteria: This task is complete when the system is fully configured, operational, and the final version of the aforementioned deliverable is approved.

4.2.4 Design/Installation of Training Centers (Not included in base West Bureau)

This paragraph is reserved for design/installation of DICV at the training centers indicated by Table 1. It is not part of the base West Bureau effort and will need requirements definition by LAPD, proposal by Raytheon, and a change order issued by LAPD prior to any work being performed.

4.3 N/A

4.4 Division Infrastructure Installation

Description: The Raytheon team will install, configure, and test the hardware and software necessary to complete wireless and wired data transfer and local storage at each division police station. This effort is divided into two task areas, the wireless and wired data transfer task, and the division local storage/back office task. Note that while these tasks are installed separately, they will be tested together as a Division.

Deliverables:

- DICVS Division Test Procedure / Results (per division) ([CDRL 12](#))

Completion Criteria: This activity is complete at each division when the Division Infrastructure tests have passed and been approved.

4.4.1 Infrastructure Upgrade

The Raytheon team will retrofit LAPD facilities in order to prepare for the installation of Digital In-Car Video back office/local storage equipment, by providing Power, AC, and access to/from network connections as follows:

Power

- Two (2) twenty (20) amp circuits OR two (2) thirty (30) amp circuits
- One (1) twist-lock receptacle, i.e. L5-30P, per circuit at proposed equipment rack location
- May require installation of new circuit breaker panel
- Raytheon will provide rack location

Cable Run

Cable run between proposed equipment rack location and network switch, if these components reside in different rooms

4.4.2 Wireless and Wired Data Transfer Installation

Description: The Raytheon team will install, configure, and test the hardware and software necessary to complete wireless and wired data transfer at each division police station. Subtasks include:

- Run conduit for power and data
- Install wireless and wired hardware components
- Connect the DICVS to the LAPD local area network
- Install and configure software
- Test and optimize the system

4.4.3 Local Storage Installation

Description: The Raytheon team will install, configure, and test the hardware and software necessary to complete local storage at each division police station. Subtasks include:

- Install the rack of DICVS equipment in division server rooms
- Connect DICVS to the LAPD local area network
- Install and configure DICVS system software
- Test and optimize the system
-

Figure 1 shows the network connectivity at a typical division station. The Division DICVS then connects to the city's ITA backbone.

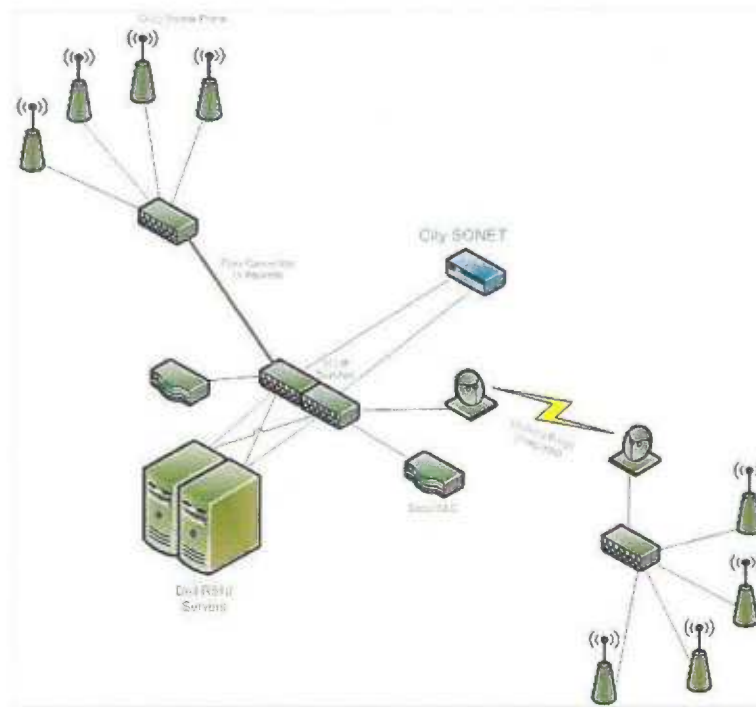


Figure 1, Division Networking Diagram

4.4.4 Back Office Server Implementation

Description: The purpose of this activity is to implement, configure and provide documentation for the (DICVS) and to provide a "transfer of knowledge" between Raytheon and key LAPD technicians as this system is implemented, configured, and tested.

Deploy Cradle Upload Workstation

Raytheon will configure Cradle Upload workstations at West Bureau Division Office locations, which are provided by LAPD. There should be one transfer workstation per upload cradle.

The major sub tasks are:

1. Configure the Cradle Upload workstation
2. Verify proper operation of the Cradle Upload workstation by demonstrating the transfer of one vehicle's video data at each of the divisions.

4.5 Vehicle System Installation

Vehicles are installed in accordance with the installation manual and procedures that were approved during the Central Bureau installation.

Description: Raytheon will install DICVS into LAPD Division vehicles. Installations will take place at LAPD Area stations or as directed by LAPD. Subtasks include:

- Install, configure, and test DICVS in each of the individual division vehicles

To ensure successful installation, the LAPD will provide support, access, personnel, and facilities necessary to carry out the installation schedule, including on-site storage if available and if so requested by Contractor.

Deliverables:

- DICVS Vehicle Installation Signoffs (one per vehicle) ([CDRL 13](#))

Completion Criteria: This task is completed for each division when 90% of the vehicles at a division have been installed and tested.

4.5.1 Test/Pilot Vehicles

Test vehicles shall be installed in the early stages of the program prior to integration and will count towards the overall quantity of vehicles installed (i.e. not an increase in the number of vehicles installed). Five test vehicles will be configured. The configuration of the test vehicles will be based on the approved Central Bureau vehicle configuration.

As part of the trade-study in section 4.2.1 it will be determined if installation design changes are needed for new model year Dodge Chargers and Ford Interceptors and a recommendation will be made if the new cars should be installed on a pilot basis early in the program if the installation layout is significantly different. The trade-study will also provide an analysis on integration with the new model year vehicle in-built display.

4.6 System Testing

Description: Once the DICVS is deployed throughout the sites listed in this SOW and operational, LAPD will initiate final DICVS acceptance testing, with assistance from Raytheon, consistent with the mutually agreed to test plan. All testing will be performed by the Raytheon team and approved by the LAPD. Each billing milestone includes an interim acceptance test per West Bureau location.

1. Maintain the DICVS during the final acceptance testing.
2. Support LAPD throughout final system test activities, per the mutually agreed-to System Test Plan.
3. If a system failure occurs and is attributable to a DICVS component, modify the DICVS to correct the deficiency.

Deliverable:

- DICVS System Test Procedure / Results ([CDRL 11](#))

Completion Criteria: When the successful System Test Results are reviewed and approved by the LAPD. The acceptance test period will automatically extend to correct all issues identified during the test.

4.6.1 Integration and Testing with Test Vehicles

The test vehicles indicated in 4.5.1 will be used along with existing division vehicles as needed during pre-integration, integration and test, dry-run testing and formal testing.

4.7 Training Services

Description: Raytheon will provide training to end-users and to system administrators prior to any system or sub-system testing. The training services include:

- **Vehicle Installation Training**
 - Vehicle installation training will be conducted during vehicle installation in a 'job shadowing' approach. Formal classroom training is not provided. This training is sufficient to allow a technician to repair or replace the equipment without voiding the warranty.
- **End User Train-the-Trainer Training**
 - Conducted once for all Divisions in the bureau over two days with two (2) training sessions per day for up to twelve (12) persons per session
 - Training of LAPD personnel on
 - In-car video capture
 - Transfer procedures
 - Back office applications
 - End user training should be held prior to the first Division going live and the start day will be provided by LAPD at least two weeks in advance
- **System Administrator Train-the-Trainer Training**
 - Conducted once for all bureaus over two days with two (2) training sessions per day for up to twelve (12) persons per session
 - Training of LAPD technical staff on the configuration operation and maintenance of
 - Coban Digital In-Car server equipment
 - Related support server applications

- System maintenance
- System Administrator training is held near the end of the program after all divisions have been installed and the system as a whole is ready

Deliverable:

- DICVS End User Manual ([CDRL 15](#))
- DICVS End User Training material ([CDRL 14](#))
- DICVS System Administrator Manual ([CDRL 16](#))

Completion Criteria:

- Training sessions are complete and training material has been delivered

4.8 Project Management

Raytheon will provide a full-time Program Manager to provide direction and control of Raytheon project personnel (and their third party contractors), and to establish a framework for project communications, reporting, procedural and contractual activities. Management tasks include defining, planning, directing, and controlling the effort to accomplish the program's objectives as defined in the contract and contained in this SOW. Raytheon's Program Manager shall be the primary Point of Contact for LAPD Program communications to Raytheon. The primary PM responsibilities include:

- Review the SOW and any associated documents with the LAPD Project Manager
- Maintain project communication through the LAPD Project Manager
- Establish documentation, configuration control and procedural standards for the development of this project
- Develop an overall Project Plan at the onset of this project for performance of this Statement of Work that meets the LAPD DICVS objectives
- Conduct project status meetings
- Prepare and submit weekly Status Reports
- Produce an Integrated Master Schedule to show all deliverables, milestone events and performance criteria called for in the contract and this SOW
- Conduct monthly Program Management Reviews
- Review and administer Project Change Control with the LAPD Project Manager

The following represent standard program management activities and are not tied to specific deliverables.

4.8.1 Weekly Status Meeting ([CDRL 01](#))

Description: Raytheon will host a weekly status meeting to bring key stakeholders together for communication and coordination. The meeting will be telecon, with Raytheon Program Manager on site, held once per week.

Deliverables: The minutes will typically consist of the following, but are subject to change based on learned best practices:

- Weekly Status Meeting Agenda/Minutes ([CDRL 01](#))

Completion Criteria: When the last weekly status meeting is held at the conclusion of the project.

4.8.2 Program Management Review ([CDRL 02](#))

Description: Raytheon will provide a summary of program activity over the previous fiscal month. The PMR provides the opportunity to see the big picture and coordinate with key stakeholders. Systemic program issues are brought up and resolved. Near term plans are reviewed and decisions made.

Deliverables:

- Program Management Review Package/Minutes ([CDRL 02](#))

Completion Criteria: When the last PMR is held at the conclusion of the project

4.8.3 Project Scheduling ([CDRL 03](#))

Description: Raytheon has provided a notional detailed Integrated Master Schedule (IMS), located in Appendix E. The schedule is designed to meet LAPD objectives based on the RFP process flow, scope of work, and installation approach. Raytheon's proposed schedule identifies the work requirements in logical groups. The

deployment approach structure is around a defined LAPD West Bureau, five Divisions and the cars assigned to those Divisions. This allows Raytheon to gain efficiencies and preserve operational readiness. The Parties may alter the order in which work on sites is performed in order to provide for a more efficient implementation.

The IMS will reflect the actual program start date and will be updated and maintained by Raytheon as needed. Schedule concerns are addressed immediately between the Raytheon PM and the LAPD Project Manager. Normal schedule reviews occur monthly at the PMR.

Deliverables:

- Integrated Master Schedule ([CDRL 03](#))

Completion Criteria:

- The IMS is updated regularly. The final IMS will be delivered as part of the Final System Sign-off Review.

4.8.4 Supply Chain Management

Raytheon will perform Supply Chain Management activities to procure the necessary hardware, software, and consumables required for project completion. Subtasks include:

- Procure the quantity and types of digital in-car video and networking equipment identified and documented in Appendix B, System Equipment and validated during CDR
- Coordinate product ordering and shipping to the LAPD
- Provide order notification and an estimated delivery date to the LAPD Project Manager
- Track all orders
- Submit invoices to the LAPD Project Manager
- Confirm receipt of equipment with the LAPD Project Manager

4.8.5 Subcontract Management

Raytheon will perform Subcontract Management activities to ensure program objectives are met. The current and primary subcontractor on the program is COBAN. Their work scope includes the bulk of System Engineering and DICVS installation activities. They are responsible for the majority of requirements and also procure or produce the majority of equipment. Raytheon's subcontract management duties include:

- Issuing a Supplier Statement of Work (SSOW)
- Communicating and resolving program issues
- Ensuring subcontract compliance
- Scheduling resources to meet LAPD needs

4.9 Project Events

The following events or standing meetings are used to manage the progress of the program.

4.9.1 Project Kickoff [[CDRL 04](#)]

Description: The purpose of this task is to finalize the project team members, facilitate a common understanding of the project objectives, roles and responsibilities, and verify City of Los Angeles Police Department's readiness to implement these services.

Raytheon will conduct a project kick-off/high level planning session, for up to two (2) days, on a mutually agreed upon date, to identify and introduce LAPD, Contractor and Subcontractor program management, engineering, and other key personnel with discussion of responsibilities and expectations. The Kickoff will also focus on a line-by-line walkthrough of the Requirements Traceability Matrix, this SOW to ensure expectations are managed and completion criteria is fully understood and agreed upon, and the draft version of DICVS Design/Configuration Document ([CDRL 09](#))

Project Kickoff topics may include:

- Identification and introduction of Contractor and Subcontractor program management, engineering, and other key personnel with discussion of responsibilities
 - Review staffing approach and plan

- Review the project objectives
 - Review of any assumptions
- Review the program schedule
 - Identify near term critical milestones
- Review the Statement of Work
 - Discussion/resolution of any requirements or scope clarification
- Review the Requirements Traceability Matrix
 - Discussion and resolution of performance requirements
 - Identification of a resolution path and schedule for any To-Be-Determined (TBD) requirements
- Define goals and objectives for the Critical Design Review
- Establish the program Action Item register
 - Review status of all open issues and path to closure following the kickoff meeting
- Establish the program Risk and Opportunity register

Deliverables:

- Program Kickoff Package/Minutes ([CDRL 04](#))
- Draft version of DICVS Design/Configuration Document ([DRAFT CDRL 09](#))

Completion Criteria: This task is complete when the meeting is complete and the minutes have been distributed.

4.9.2 Critical Design Review [[CDRL 05](#)]

Description: The Critical Design Review (CDR) is held to ensure detailed design elements are agreed upon by all parties before commencing implementation. The CDR provides the opportunity to review design documentation and provide last minute course correction. The CDR will be held as soon as possible, within the first 30 days of the contract, so procurement of parts can commence.

CDR topics may include:

- Review of the DICVS Wired and Wireless Network Plan
- Review of the DICVS Hardware, Software, and Integration Plan
- Review of the DICVS Test Plan
- Review of project network design
 - Vehicle drawings
 - Local Storage drawings
 - Central Storage drawings
- Review of Bill of Material (for quantity and specification)
- Sign Off of design-based requirements in the RTM

Deliverables:

- DICVS CDR Package/Minutes ([CDRL 05](#))
- Updated version of DICVS Design/Configuration Document ([UPDATED CDRL 09](#))
- Draft Version of System Test Plan/Procedure ([Draft CDRL 11](#))
- Draft Version of Division Test Plan/Procedure ([Draft CDRL 12](#))
- Final Version of DICVS Vehicle Installation Signoff ([CDRL 13](#))

Completion Criteria: This task is complete when the meeting is complete and the minutes have been distributed.

4.9.3 N/A

4.9.4 Division Test Readiness Review [[CDRL 06](#)]

Description: A Division TRR is held to ensure all elements of division testing are ready and formal division testing can commence. Division testing is intended to sign off on division infrastructure requirements – this includes the wireless system, LAN system, and back office (local storage) system. The Division TRR is held prior to testing of the first division installation. Division TRR topics include a review of the DICVS Division Test Procedure.

Deliverables:

- Division TRR Package/Minutes ([CDRL 06](#))
- DICVS Division Test Plan / Procedure / Results ([IV&V-04](#))
- Vehicle Sign-Off Sheets for each vehicle installed ([CDRL 13](#))

Completion Criteria: This task is complete when the meeting is complete and the minutes have been distributed.

4.9.5 System Test Readiness Review ([CDRL 07](#))

Description: A System TRR is held to ensure the entire DICVS system is ready in total. System testing is intended to sign off all remaining requirements. These are typically requirements that are tested at the higher level or between subsystems. The System TRR is held near the end of the program and marks the final testing to be performed on the DICVS system. System TRR topics include a review of the DICVS System Test Procedure.

Deliverables:

- DICVS System TRR Package/Minutes ([CDRL 07](#))
- DICVS System Test Plan / Procedure / Results ([CDRL 11](#))

Completion Criteria: This task is complete when the meeting is complete and the minutes have been distributed.

4.9.6 Final System Sign Off Review ([CDRL 08](#))

Description: The purpose of this activity is to document the accomplishments of the project and to present the Final System Acceptance Test Results to the LAPD Project Manager.

- Review the deliverables of the project with the LAPD Project Manager
- Review the Final System Acceptance Test results

Deliverables:

- Final System Sign Off Review Package/Minutes ([CDRL 08](#))
- Final version DICVS Design/Configuration Document ([FINAL CDRL 09](#))
- Manufacturer User Manual ([OM-03](#))

Completion Criteria: Raytheon will have met its responsibilities for this activity when Raytheon has conducted an on-site review meeting and delivered the Final Acceptance Document to the LAPD Project Manager.

4.10 Final System Acceptance

The LAPD will approve and sign the Final System Acceptance in accordance to this SOW after Raytheon meets the requirements for system completion, as stated below. The System's acceptance shall include the following:

- Deliverables are complete and adequately meet the City's needs as defined by this SOW
- Confirm the system tests accurately meet the requirements as stated in this SOW
- Raytheon provides a notice of System Completion for the DICVS, and certifies the following:
 - Raytheon certifies it has completed all work as included in this SOW, except for ongoing services such as Warranty, System Maintenance and Support services
 - All deliverables have been provided to the City and meet requirements in this SOW
 - All terms and conditions have been met
- The city responds to Raytheon System Completion notice within (15) business days of receipt with:
 - Final System Acceptance Notice
 - Final System Rejection Notice

If the City issues a Final System Acceptance Notice, it confirms receipt of all required tasks, deliverables and services, except for ongoing services such as Warranty, System Maintenance and Support services.

If the City issues a Final System Rejection Notice, the City must provide the specific reasons for rejection. The City of Los Angeles Police Department and Raytheon must meet within (10) business days after receipt of rejection for discussion. Raytheon will provide a detailed plan of actions required to resolve all of the reasons for rejection. If disagreement continues, differences will be resolved in accordance to the Disputes contractual section of this document.

The City has the right to utilize the system and / or all of the deliverables until the identified deficiencies are corrected.

4.11 Follow-on System Support

Description: The Raytheon team will provide supplemental system support:

- Six months of on-site technical support
- One year of 24/7 phone support
 - Four hour technical response time
 - Second business day problem resolution
 - Remote problem diagnosis and support
 - Remote service and troubleshooting if access is granted to support personnel.
 - RMA and warranty services
 - Technical troubleshooting/problem solving assistance:
 - Level one support (LAPD Help Desk – not included)
 - Level two support (Raytheon/COBAN subject matter expertise)
 - Level three support (OEM manufacturer assistance)
 - Use of an automated help ticket tracking system to follow all problems to closure

Note that the six months of on-site support and the one year of phone support are in addition to, and run concurrently with, the five year Warranty and Maintenance service listed below.

Deliverables: Customer service, system support

Completion Criteria: Follow-on system support begins after final system acceptance. There are no completion criteria other than the passage of time.

5 DELIVERABLES

5.1 Bill of Material

The Bill of Material (BOM) listed in Appendix B contains detailed information about DIVCS system components and quantities thereof for the West Bureau. The BOM specifies what physical entities are to be delivered as part of the DICVS system.

5.2 Contract Data Requirements List (CDRL)

The following deliverables will be delivered to the City of Los Angeles Police Department under this Statement of Work. See below for a description of guidance for each deliverable. All documents listed are 'Final' unless otherwise stated. All documents are in electronic format (no paper copies).

5.2.1 Acceptance of Deliverables

1. One (1) electronic copy of the Deliverable will be submitted to the City of Los Angeles Police Department Project Manager. It is the City of Los Angeles Police Department Project Manager's responsibility to make and distribute additional copies to any other reviewers.
2. The City of Los Angeles Police Department Project Manager agrees to inform the Raytheon Project Manager within fifteen (15) business days if City accepts the Deliverable or provide a documented list of issues, together with reasonable detail, if City believes Raytheon has not satisfied the criteria for the applicable Deliverable.
3. The Raytheon Project Manager will review the City's issues and implement those changes that Raytheon and City jointly deem necessary to meet the specifications for the applicable Deliverable, Deliverable Guidelines and provide the revised Deliverable to City's Project Manager, at which time the Deliverable is accepted. Any unresolved issues will be managed in accordance with Change Control Procedure between City of Los Angeles and Raytheon for Digital In-Car Video System.

4. If the Raytheon Project Manager does not receive notice or a list of issues within fifteen (15) business days, the Deliverable will be deemed accepted, and all obligations of Raytheon regarding such Deliverable will be deemed satisfied.
5. Status Reports are exempt from this procedure.

Table 3, Contract Data Requirements List (CDRL)

CDRL #	Ref.	Item Description	Freq.	Timing	Quantity
01	4.8.1, 5.2.2	Weekly Status Meeting	Weekly	TBD	1 per week
02	4.8.2, 5.2.3	Program Management Review	Monthly	2nd Week	1 per month
03	4.8.3, 5.2.4	Integrated Master Schedule	Monthly	2nd Week	1 per month
04	4.9.1, 5.2.5	Program Kickoff	1	10 days ARO or prior	1
05	4.2.1 4.9.2, 5.2.6	Trade Study Review Critical Design Review	1	30 days ARO 45 days ARO or prior	1
06	4.9.4, 5.2.8	Division Test Readiness Review	1	One day prior or day of division test	1
07	4.9.5, 5.2.9	System Test Readiness Review	1	One day prior or day of division test	1
08	4.9.6, 5.2.10	Final System Sign Off Review	1	TBD	1
09	5.2.11, 4.2.2, 4.9.1, 4.9.2, 4.9.6	DICVS Design/Configuration Document	Draft Final As-Built	Kickoff CDR Final System Selloff	1
10	4.2.1	Network Trade Study White Paper	Final	30 days ARO	1
11	5.2.15, 4.2.2, 4.6, 4.9.2, 4.9.5	DICVS System Test Plan / Procedure / Results	Draft Final	CDR System TRR	1
12	5.2.18, 4.2.2, 4.4, 4.9.2	DICVS Division Test Plan / Procedure / Results	Draft Final	CDR Division TRR	1
13	5.2.22, 4.5, 4.9.2, 4.9.4	DICVS Vehicle Installation Signoff	Final	Division TRR	Per vehicle
14	5.2.23, 4.7	DICVS End User Training Material	1	10 days prior to training	1
15	5.2.25, 4.7	DICVS End User Manual	1	10 days prior to training	1
16	5.2.26, 4.7	DICVS System Administrator Manual	1	10 days prior to training	As available
17	5.2.27	Manufacturer User Manual	1	Final System Selloff	1 per

5.2.2 Weekly Status Meeting [\[CDRL 01\]](#)

Purpose: Raytheon will provide the agenda and minutes to the Weekly Status Meeting.

Content: The minutes will typically consist of the following, but are subject to change based on learned best practices:

- Problems, issues, and recommendations
- General Discussion
- New Business
- Activities Planned

Delivery: Raytheon will email the agenda immediately in advance of the meeting. The minutes will be emailed within 24 hours of the meeting.

5.2.3 Program Management Review [\[CDRL 02\]](#)

Purpose: Raytheon will provide a Program Management Review package (and associated minutes) once per month. The PMR is meant to document the state of the program and bring all stakeholders into alignment. The PMR presents an opportunity to discuss program issues and determine a path forward as well as address program risks and opportunities.

Content: The PMR package will typically consist of the following, but are subject to change based on learned best practices:

- Accomplishments
- Near-Term plans
- Program Issues
- Risks and Opportunities
- Schedule
- Subcontractor Status

Delivery: PMRs will be held during the second fiscal week (on a day that is mutually agreeable) allowing one week for collection and processing. Raytheon will email the PMR package within 24 hours of the meeting. The minutes will be emailed within two business days of the meeting.

5.2.4 Integrated Master Schedule [\[PM-03\]](#)

Purpose: Raytheon will provide an Integrated Master Schedule (IMS) to the LAPD Project Manager outlining the project tasks, timelines, milestones, dependencies, and critical paths. The IMS will be a key part of the PMR and will illustrate near-term needs. The IMS status will be collected by the PM based % complete of actual accomplishments.

Content:

- Project tasks
- Timelines
- Milestones
- Dependencies

Delivery:

- Included in the PMR package or upon request

5.2.5 Program Kickoff [\[CDRL 04\]](#)

Purpose: Raytheon will provide a Program Kickoff package (and associated minutes) within the first two weeks of the program to get the program team synchronized. The Program Kickoff allows all team members to get to know each other and become familiar with a common set of program objectives.

Content:

- Identification and introduction of Contractor and Subcontractor program management, engineering, and other key personnel with discussion of responsibilities
- Address overall organizational structure
- Discuss plans, procedures, and schedules
- Staffing approach and plan

- Sub-tier contract objectives and status
- Review status of all open issues and path to closure following the kickoff meeting.
- Discussion/resolution of any requirements or scope clarification
- Identification of a resolution path and schedule for any To-Be-Determined (TBD) requirements
- Identification of near term critical milestones and overall program success criteria
- Review of any assumptions
- Resolve how management will interact in future communications
- Discuss program management plan to ensure all reporting requirements are understood.

Delivery: The program kickoff will be within the first two weeks of the program. The intent is to have the baseline review prior to significant work beginning.

5.2.6 Trade-Study Review & Critical Design Review [\[CDRL 05\]](#)

Purpose: The trade-study will be provided three weeks prior to the CDR and based on the discussion of the trade study the CDR schedule may have to be changed, however, notionally CDR will be held two weeks after the trade-study review. Raytheon will provide a CDR package (and associated minutes) as soon as possible after program start. The CDR is used to lock down all design artifacts so implementation may begin. The CDR is also used to synchronize key stakeholders on the technical details of the program. The DICVS Design Document will be the centerpiece of discussion. The test plan and the associated test procedures will provide insight into the direction of testing.

Content:

- DICVS Design Document (Final)
 - Vehicle drawings (one per vehicle type)
 - Wireless and Wired drawings (one per Division)
 - LAN Network drawings (one per Division)
 - Local Storage drawings (one per Division)
 - Central Storage drawings
- DICVS Test Plan (Final)
- DICVS Vehicle Test Procedure review (Draft)
- DICVS Division Test Procedure review (Draft)
- DICVS Central Storage Test Procedure review (Draft)
- Bill of Material

Delivery: The CDR should be held as soon as possible, tentatively within 30 day of program start.

5.2.7 N/A

5.2.8 Division Test Readiness Review [\[CDRL 06\]](#)

Purpose: Raytheon will provide a Division TRR package (and associated minutes).

Content:

- DICVS Division Test Procedure (Final)
- Roles and responsibilities during testing
- Discussion of known problems

Delivery: The Division TRR package will be delivered two days prior to the event.

5.2.9 System Test Readiness Review [\[CDRL 07\]](#)

Purpose: Raytheon will provide a System TRR package (and associated minutes).

Content:

- DICVS System Test Procedure (Final)
- Roles and responsibilities during testing
- Discussion of known problems

Delivery: The System TRR package will be delivered two days prior to the event.

5.2.10 Final System Sign Off Review [\[CDRL 08\]](#)

Purpose: Raytheon will provide a Final System Sign Off Review (FSSR) package (and associated minutes). The FSSR brings together the culmination of all vehicle, division, and central storage test results. The FSSR also include all As-built design material and user manuals. It is the final summation and closeout of the project.

Content:

- Test Review
 - DICVS Division Test Procedure results
 - DICVS Central Storage Test Procedure results
- DICVS As-Built Design Document
 - Wireless and Wired drawings (one per Division)
 - LAN Network drawings (one per Division)
 - Local Storage drawings (one per Division)
- All user training material
 - DICVS Vehicle End User Training Document
 - DICVS Division End User Training Document
 - DICVS Division System Admin Training Document
- All user manuals
 - DICVS Vehicle System Admin Manual
 - DICVS Division End User Manual
 - DICVS Division System Admin Manual
 - All manufacturer manuals
- Project's accomplishments summary
- Project deliverables checklist
- LAPD Manager signature block

Delivery: The FSSR will be held towards the very end of the program and will be shown in the IMS.

5.2.11 DICVS Design / Configuration Document [\[CDRL 09\]](#)

Description: Raytheon will provide design drawings that include physical and logical network diagrams. The document will lock down the technical specifications, connectivity, and placement of DICVS equipment. The document will become final when the "as-built" and system configurations are added to the document.

Content:

- Network connectivity
- Block diagrams
- Data flow diagrams
- Integration planning
- IP Address
- Configuration settings/instructions
- Division drawings (one per division)
- Timing
- Parameters

Delivery:

- The draft document is presented at the program kick-off ([CDRL 04](#))
- The updated design version of this document is presented and approved at the CDR ([CDRL 05](#))
- The final version of this document with all as-built and configuration information is presented and approved at Final System Sign Off Review ([CDRL 08](#))

5.2.11.1 Digital Video System Infrastructure Design

The Digital Video System Infrastructure defines the components of the DICVS that support the management, transportation, and storage of video data, from in-vehicle to the central storage. The design will interface

seamlessly with the current DICVS infrastructure (CHE, Central Bureau, South Bureau), augmenting its current capabilities and capacity.

This design contains:

- Description and function of each DICVS component
- Video data path between various components, describing the data upload, storage and retrieval processes
- Interfaces between components at each location, including in-vehicle, back-end management server, and storage server
- Software interfaces and requirements
- End-user access requirements at each location
- Integration approach with current DICVS infrastructure
- Storage server requirements
 - Primary storage via hard disk array
 - Extended storage via LTO-5 tape drive
 - Storage capacity requirements, current and projected
 - Distributed storage design, accessibility from any precinct
- Data transport requirements
- Network infrastructure and respective requirements to support data upload, including wired, wireless, and removable media
- Inter-Division transfer
- Video streaming requirements
- Back-end management server requirements
- Define the underlying assumptions that influence the design

5.2.12 NA

5.2.13 NA

5.2.14 NA

5.2.15 DICVS System Test Plan / Procedure / Results [\[CDRL 11\]](#)

Purpose:

Raytheon will provide the LAPD Project Manager with a set of documents including the System Test Plan, Test Acceptance Data Sheets and Test Acceptance Report for the in-car and back office solution.

Content:

The Test Plan will consist of the following, as appropriate:

- Prerequisites for the test
- Describe and record the set-up instructions
- Document testing instructions
- Document Test results recording methodology

Delivery:

Raytheon will deliver one (1) hard copy of the Test Plan document, the Test Acceptance Report and one set of the Inspection/Acceptance Data sheets, in reproducible format, and one (1) soft copy of the Test Plan document and the Test Acceptance Report in a mutually agreed to medium to the LAPD Project Manager.

Purpose:

The System Test Procedure is an end-to-end test designed to ensure functionality of the system from initial data capture through to final system storage and retrieval. It will test the entire set of DICVS components from vehicle, through the back office, and onto centralized system storage at CHE.

Content:

- Date and time
- Equipment serial numbers
- Testers with sign off area

- Tests performed (not all inclusive)
 - End-to-end network transfer for all substations
 - AutoDVD operations

Delivery:

The test results will be reviewed and approved at the System TRR.

Purpose:

Provide an electronic copy of the results of the DICVS Central Storage Test Procedure. The pen and ink version will be scanned in and stored digitally.

Content:

- Pen and ink population of the System Test Procedure signed off by the testers, LAPD officer, and/or Raytheon representative (if applicable).

Delivery:

- A Draft version of the document is provided at the CDR ([CDRL 05](#))
- The final version along with the contractor test results is provided at the end of West Bureau testing at the System Test Readiness Review ([CDRL 08](#))

5.2.16 NA

5.2.17 NA

5.2.18 DICVS Division Test Plan / Procedure / Results [\[CDRL 12\]](#)**Purpose:**

Provide a battery of tests that verify the functionality and operational ability of the components at the Division. This includes the wired/wireless data transfer, the Local Area Network, and the onsite local storage. Testing includes performance testing to ensure capacity meets specifications.

Content:

- Date, time, location,
- Equipment serial numbers
- Tester names with sign off area
- Tests performed (not all inclusive)
 - Wired upload transfer speed
 - Wireless upload transfer speed
 - Cradle upload
 - DVMS functionality
 - Filtering
 - Playback
 - Authentication

Delivery:

One division test procedure will be used for all divisions.

Purpose:

Provide an electronic copy of the results of the DICVS Division Test Procedure that is performed at each division.

Content:

- Pen and ink population of the DICVS Division Test Procedure (one per division); this will include the sign off by the vehicle installer/tester and an LAPD officer or Raytheon representative (if applicable).

Delivery (Per Division):

- A Draft version of the document is provided at the CDR ([CDRL 05](#))
- The final version along with the contractor test results is provided at each of the respective Division Test Readiness Review ([CDRL 06](#))

5.2.19 NA

5.2.20 NA

5.2.21 NA

5.2.22 DICVS Vehicle Installation Sign Off Results [\[CDRL 13\]](#)**Purpose:**

Provide an electronic copy of the results of the DICVS Vehicle Sign Off sheet that is performed on each division vehicle.

Content:

- Pen and ink population of the DICVS Vehicle Sign Off Sheet (one per vehicle); this will include the sign off by the vehicle installer/tester and an LAPD officer or Raytheon representative (if applicable).

Delivery:

One per vehicle, supplied at the end of division testing. ([CDRL 13](#)/ per vehicle)

5.2.23 DICVS End User Training Material [\[CDRL 14\]](#)**Purpose:**

End-User (train the trainer) Training Material will be provided to the LAPD Project Manager, to be used in training the LAPD training personnel on all aspects of the in-car capture, transfer, and back office procedures.

Content:

- Description of overall DICVS solution
- In-car video capture procedures
- In-car video transfer procedures
- Back office procedures

Delivery:

End user training materials will be provided 10 business days prior to the training sessions. ([CDRL 14](#))

5.2.24 NA

5.2.25 DICVS End User Manual [\[CDRL 15\]](#)**Purpose:**

The DICVS End User Manual will be provided to the LAPD Project Manager, which provides a reference for end users of the system.

Content:

- Description of overall DICVS solution
- In-car video capture procedures
- In-car video transfer procedures
- Back office procedures

Delivery:

All user manuals will be reviewed and approved at the TRR.

5.2.26 DICVS System Administrator Manual [\[CDRL 16\]](#)

Purpose:

The DICVS System Administrator Manual will be provided to the LAPD Project Manager, which provides a reference manual for system administrators.

Content:

- Back office system administrator functions
- CHE (central storage) system administrator functions

Delivery:

The DICVS System Manual will be provided 10 business days prior to the training session. [\(CDRL 16\)](#)

5.2.27 Manufacturer User Manual [\[CDRL 17\]](#)

Purpose:

Organic hardcopy and softcopy manuals supplied by OEM manufacturers will be provided to the LAPD.

Content:

- OEM manuals

Delivery:

OEM user manuals will be provided at the Final System Sign Off Review. [\(CDRL 17\)](#)

6 CITY OF LOS ANGELES POLICE DEPARTMENT RESPONSIBILITIES

The successful completion of the proposed effort depends on the full commitment and participation of City of Los Angeles Police Department management and personnel. The responsibilities listed in this section are in addition to the responsibilities specified in the Agreement, and are provided at no charge to Raytheon. Raytheon's performance is dependent upon the following responsibilities fulfillment by LAPD as scheduled in the project plan. Delays in performance of these responsibilities, may result in additional cost and/or delay of the completion of the project, and will be handled in accordance with the Project Change Control Procedure.

6.1 Los Angeles Police Department Project Manager

Prior to the start of this Statement of Work, LAPD will designate a person, called the LAPD Project Manager, to whom Raytheon communications are addressed and who has the authority to act for LAPD in all aspects of the contract.

The LAPD Project Manager's responsibilities include:

1. Serve as the interface between Raytheon and all LAPD departments, organizations and sites participating in this project.
2. With the Raytheon Project Manager, develop the project plan prior to implementation.
3. With the Raytheon Project Manager, administer Project Change Control.
4. Attend the project kick-off/high level planning session.
5. Attend project status meetings.
6. Obtain and provide information, data, decisions and approvals, within five (5) working days of Raytheon's written request, unless both Raytheon and LAPD agree to an extended response time.
7. Help resolve project issues and escalate issues within the City of Los Angeles Police Department organization, as necessary.
8. Work with Raytheon to schedule the on-site survey at LAPD locations.
9. Participate with Raytheon while Raytheon demonstrates the operation input, cataloging/indexing, query, and management functions of your content management server.
10. With the Raytheon Project Manager, coordinate activities for Final System Acceptance.
11. Attend the final project meeting to review the accomplishments and deliverables.

6.2 Other City of Los Angeles Police Department Responsibilities

1. Provide security clearance and building access for Raytheon project personnel. Most of the work involved in this project is performed during normal working hours (8:00 AM to 5:00 PM). However, on some occasions, LAPD may need to provide access to facilities outside of these hours with forty-eight (48) hours' notice.
2. Designate suitable vehicles in which the in-car video equipment is installed, and work with Raytheon to schedule a time to install the in-car video equipment in the LAPD designated vehicles.
3. Provide access to the vehicles at the agreed upon time to allow Raytheon or its subcontractors to install the equipment.
4. Provide personnel to monitor the installations and to receive basic skills instruction from Raytheon by observing during the performance of the installation services and to provide vehicle installation signoff.
5. Provide suitable training facilities (e.g., table, chairs for staff that will be trained, PC projector and projection screen) for end-user and administrator training.
6. Ensure LAPD personnel who attend the System Administrator training sessions herein have basic server administrator skills for Microsoft SQL and Microsoft Windows Server.
7. Provide personnel who will work with Raytheon to test the transfer procedures.
8. Provide personnel to attend the training session on video capture and transfer procedures.
9. N/A.
10. Provide personnel to attend a training session on DICVS management administration procedures.
11. Record an instructional video that can be used in training additional personnel and officers.
12. Identify, collect, and provide input information on legislation that would affect the development of video data retention policies.
13. Make final determination of roles, access authorities and privileges during creation of the Access Control Plan.
14. Work with Raytheon to identify mounting point locations, provide mounting surface and power facilities for the wireless access points.
15. Provide secure mounting location for installation of network cabinets in the garage/basement area of Division locations.
16. City of Los Angeles Police Department is responsible for existing LAN/WLAN applications and network communication issues. Raytheon and LAPD will jointly assess the potential impact on network capacity of the additional recorded transmissions from remote locations to the centralized site. LAPD will be responsible for upgrades to the LAN/WLAN to accommodate the incremental network traffic.
17. An operational IP-based network exists in the City of Los Angeles Police Department location where the content management server and upload workstation will be installed. That is, each of the five (5) West Bureau locations that will have upload capability (wired and wireless) connects to the LAPD LAN/WLAN.
18. City of Los Angeles Police Department will provide a working space for vehicle installation. The installers will need a covered area (e.g., garage, "car port", etc.) with lighting if possible.
19. Provide a rotating pool of vehicles to facilitate the installation process at a constant flow as to not slow the project schedule. Any delays to the project schedule due to actions of the LAPD will result in a project change of scope. A project change of scope will require a new amended project schedule and possible additional charges.
20. Provide access or escorts to allow the Raytheon Team and any project subcontractors into areas needed for work on this project.
21. Any training beyond the RFP will be the responsibility of the LAPD and their Train the Trainers.
22. Making personnel and facilities available as required
23. Any changes or additions to the project after the project start date will be a change of scope and will result in a change order and possible further charges.
24. Any project change of scope originating from the actions of the LAPD will result in a new amended project schedule.

Appendix A: System Requirements

Table 4, System Requirements

RTM Item #	Requirements Traceability Matrix (RTM)	
	Vehicle Installation	
1	All vehicle components of the System shall be installed in such a way that it will not pose a hazard to passengers in the event of a vehicle collision.	
2	The recording device shall be mounted on a Havis-Shield pull-out equipment tray of the appropriate model for the year and make of the vehicle.	
3	An in-vehicle network switch supporting 10/100 Ethernet shall be installed.	
4	The recording device shall be physically mounted to the vehicle such that it can be removed only with the use of tools.	
5	The System shall have a forward-facing color camera that captures events occurring in front of the vehicle.	
6	The forward-facing color camera shall be mounted at the top of the windshield or on the vehicle ceiling.	
7	The position and direction of the forward-facing color camera shall have the option of being secured such that it can only be changed by maintenance personnel.	
8	The System shall have a rear-seat infrared wide-angle camera that captures events occurring in the backseat of the vehicle.	
9	All cameras shall operate on a filtered power source that is regulated and short-circuit protected.	
10	All cameras shall be capable of withstanding temperatures from -20° to 165° F under direct sunlight.	
	<i>The operation of the System shall not interfere with the following external elements:</i>	
11	• High-powered television stations	
12	• Radio transmission	
13	• Vehicle alternator	
14	• Vehicle ignition	
15	• Vehicle electrical systems	
16	• Vehicle heating, air conditioning, and fans	
17	• Emergency lights	
18	• Radios	
19	• Sirens	
20	• Mobile Data Computer (MDC)	
21	• Speed measurement devices	
22	• High-voltage power lines	
23	• Light sources	
24	• Microwave transmissions	
25	• Infrared cameras	
26	• License Plate Recognition System	
27	• Global Position System (GPS)	
28	• Biometrics System	

RTM Item #	Requirements Traceability Matrix (RTM)
29	- Pursuit Management System
30	- Geographical Information System
31	The System shall be fully operational while subject to interference from the same elements.
32	The System shall have built-in mechanisms to prevent damage to the System resulting from irregularities in the power supply, such as a reverse in polarity or electrical transients.
33	The system configuration and settings shall be maintained in the event of a sudden power loss.
34	All recorded video shall be retained in the event of a sudden power loss during a recording session.
35	All recorded video shall be retained in the event of a sudden power loss during data transmission.
36	The System shall use a single time source for its time clock.
37	The System components that come into contact with human skin shall not reach temperatures capable of causing a burn injury.
38	The System components shall be installed outside of the vehicle air bag deployment zone.
39	The System shall be capable functioning for a minimum of two (2) hours when the vehicle ignition is off, with a healthy car battery.
40	All software and firmware updates for the System shall be performable via wireless through a centralized revision manager.
Vehicle Audio/Video Processor	
41	The System shall operate independently of the LAPD Mobile Data Computer (MDC).
42	The recording media shall be a solid state drive (SSD) with a minimum capacity of 32 GB.
43	The System shall be operational within the temperature range of -20° and 165° F.
44	The System shall support video feeds from a minimum of three (3) sources.
45	The System shall allow the System Administrator to configure the video pre-recording and post-recording time.
46	The System shall allow the System Administrator to specify that the audio not be recorded during the pre and post recording period.
47	The System shall allow the user the option to retain or discard the pre-recorded buffered video.
48	The System shall be capable of applying to the recorded data a location stamp received from the GPS module.
49	The System shall support wireless 802.11n.
50	The System shall allow for at least two (2) users to be logged into the in-vehicle solution simultaneously.
51	The System shall support the simultaneous recording of two video feeds minimum.
52	The System shall not allow the user to erase or record over previously recorded video, with exception to the pre-recorded buffered video.
53	The System shall use a digital video signature that has been standardized by the American Bar Association (ABA) [Digital Signature Guidelines, Information Security Committee, Electronic Commerce & Infrastructure Technology Division, of the ABA. 1996]. Refer to the minimum standards for Digital Video Systems set forth by the International Association of Chiefs of Police (IACP).
54	The System shall provide an indication to the user when the removable media is inserted or removed.
55	The System shall perform a power-up self-test when power is supplied to the device.
56	The System shall provide an indication to the user when the power-up self-test fails.
57	The System shall be capable of monitoring its operational status.

RTM Item #	Requirements Traceability Matrix (RTM)
58	The System shall provide an immediate audible and visual notification to the user if any component of the system is not operational.
59	The System shall collect date and time stamps of when the storage media is inserted or removed.
60	The System shall indicate the amount of space remaining on the storage media.
61	The System shall provide an audible and visual indication to the user when the storage media has reach 90% of its capacity.
62	The removable storage media shall display a unique identification number on its exterior casing.
63	The System shall be capable of uninterrupted recording for a minimum of thirty (30) hours at 4CIF or better with a minimum frame rate of thirty (30) frames per second.
64	The System shall support the H.264/MPEG-4 video codec.
65	The System shall support the MPEG-2 video codec.
66	All programmable parameters of the System shall be stored on non-volatile memory
67	The System shall have the option to delay the recording that is triggered by the light bar sensor.
68	The duration of the delay shall be configurable by the System Administrator.
69	The System shall have a minimum of two (2) USB 2.0 ports.
70	The System shall have a minimum of two (2) Ethernet ports.
71	The System shall log all system activities via metadata.
<i>The metadata for each video file shall include the following information:</i>	
72	• Date and time per time source
73	• Coordinates
74	• Bookmarks
75	• User identification
76	• Emergency light status
77	• Siren status
78	• Vehicle braking status
79	• Microphone activation/deactivation status
Software & Graphic User Interface (GUI)	
<i>The System software shall have the following user functions:</i>	
80	• Log on/off
81	• Power on/off
82	• Video play
83	• Video record start/stop
84	• Video fast-forward
85	• Video rewind
86	• Video stop
87	• Video pause
88	• Video snap shot

RTM Item #	
	Requirements Traceability Matrix (RTM)
89	• Video volume up/down
90	• Force upload
91	• Display dim, on/off
92	• Video zoom in/out
93	• Video bookmark
94	• Run systems diagnostics test
	The software GUI shall provide a indication on the display for the follow:
95	• Camera audio recording on/off
96	• Camera video recording on/off
97	• Microphone audio recording on/off
98	• Storage media low capacity warning, below 10% capacity remaining
99	• Data upload in progress
100	• Data upload complete
101	The display of the recording video shall measure at least 3.75" by 3".
102	The display of the recording video shall be in color.
103	The display shall show the live video feed even when the feed is not being recorded.
104	The recorded video shall show the current date and time on one corner of the video.
105	The date and time stamp shall be displayed in a manner not to interfere with the activity of the video.
106	The system shall be able to provide live audio output from the microphone transmitter.
107	The system shall be able to provide audio output for the recorded video playback.
108	The System volume control shall allow the user to increase or decrease the audio level.
109	The System volume control shall allow the user to mute or unmute the audio on playback.
110	The System volume control shall be accessible by the user during audio or video playback.
111	The System shall allow the user to control the brightness of the display.
112	The System shall allow the user to turn off the display.
113	The video snapshots shall be stored in JPEG or Bitmap format.
114	The video snapshots shall retain 4CIF resolution.
115	The System shall allow the user to categorize the recorded media in terms of event-types.
116	The System shall allow the System Administrator to customize the types of events for which the user can tag to recorded media.
117	The System shall have a single button that sets the display brightness to day mode or night mode.
118	The System shall be fully operational by a user wearing gloves.
119	The controls of the System shall be installed within the range of the user, defined by the guidelines set forth by the Society of Automotive Engineers for the placement of automotive controls.
120	The display shall only show live video feed for video that is recordable or when the vehicle is in motion.
	Front Camera

RTM Item #	Requirements Traceability Matrix (RTM)
121	The System shall provide an illuminated record indicator visible to persons outside of the vehicle when the System is actively recording.
122	The camera shall have automatic iris and white balance features.
123	The camera shall automatically engage/disengage night mode without user intervention.
124	The camera shall have a backlight compensation setting.
125	The video resolution shall be at minimum 704 x 480 pixels.
126	The camera field of view shall be at minimum 60°.
127	The camera shall have at minimum 18x optical zoom.
128	The camera shall have at minimum 0.7 LUX for color and 0.1 for LUX black and white.
129	The resolution and clarity of a video still-frame shall allow the user to identify license plate numbers, characters, and state information under daylight conditions from a distance of up to 20 feet.
130	The motion resolution of the recorded video shall allow the user to discern fluid motion at a playback speed of 30 frames per second.
Rear Camera	
131	The rear facing camera shall have a low light capability of 0 LUX in infrared black and white and minimum of 1 for LUX in color.
132	The rear facing camera shall have a hardened enclosure.
133	The System shall have a separate microphone for recording the audio from the rear seat.
Microphone Transmitter	
134	The System shall have at minimum two wireless transmitters per vehicle.
135	The wireless transmitters shall have a minimum range of 1,000 feet in line of sight conditions.
136	The wireless transmitters shall use internal antennas.
137	The wireless transmitters shall contain an internal, redundant microphone.
138	The wireless transmitters shall include a lavalier microphone.
139	The function buttons on the wireless transmitter shall be programmable.
140	The wireless transmitters shall allow the user to mute/unmute the audio recording.
141	The wireless transmitters shall operate on frequency bands per FCC regulations.
142	The wireless transmitters shall automatically scan for and use the most interference-free frequency.
143	The wireless transmitters shall use digital transmission.
144	The wireless transmitters shall synchronize with the System.
145	The wireless transmitters shall have a built-in rechargeable battery with forty-eight (48) hours minimum standby capacity and ten (10) hours minimum talk capacity.
146	Each area station where the System is installed shall have charging devices for the wireless transmitters.
147	The wireless transmitters shall not pose risk or injury to the user following manufacturer recommended use.
148	The wireless transmitters shall meet the Underwriters Laboratories standards for safety.
149	The clips or retention devices for the wireless transmitter shall be compatible with LAPD approved attire.
150	There shall be two sync points per vehicle
Audio	
151	The System shall support a minimum of three (3) independent audio recording tracks.

RTM Item #	Requirements Traceability Matrix (RTM)	
152	The System shall store the audio channels on independent tracks without the need for toggling or interference.	
153	The audio quality shall have a minimum signal-to-noise ratio of 46 dB.	
154	The System shall have a microphone to capture backseat audio.	
155	The microphone shall be inaccessible by persons in the backseat.	
Record Triggers		
The audio and video recording shall be activated by the following triggers:		
156	• User presses the 'record' button on the GUI	
157	• Activation of emergency lights and/or sirens	
158	• User presses the 'record' button on the wireless microphone transmitter	
159	• Vehicle air bag is deployed or crash sensor activation	
160	The System shall activate the recording resulting from a trigger regardless of whether or not a user is logged into the System.	
161	The System shall have the capability to prompt the user for log in credentials after the completion of the triggered recording.	
162	The System shall allow the System Administrator to assign a triggered recorded video to a specific user.	
Data Transfer from Vehicle		
163	The System shall provide network security for all modes of data transfer.	
164	The System shall collect and associate with each transferred media the date, time, serial number of the assigned officers, and the vehicle identification information.	
165	The System shall provide the following modes of data transfer:	
Removable Media:		
166	The removable media shall be physically secured with a locking mechanism.	
Wireless Transfer:		
167	The System shall support the simultaneous upload from 15 vehicles at each area station.	
168	The System shall identify on the display the primary location and server to which the vehicle is assigned upon user log in.	
169	The System shall prompt the logged in user on whether or not to initiate data upload in the event that the vehicle is within range of an area station to which the vehicle is not assigned.	
170	The wireless transfer rate shall be at minimum one (1) second for every seven (7) seconds of recorded video/audio.	
171	The System shall include a mechanism that automatically connects and authenticates vehicles in wireless range of the assigned area station for wireless transfer.	
Hardwire Transfer:		
172	The System shall have cabling for hardwire transfer for up to five vehicles simultaneously at each area station.	
173	The System shall automatically authenticate vehicles that are connected for hardwire transfer.	
Back Office: Access		
174	The System shall be configurable by only the System Administrator and authorized personnel.	
175	The System shall allow authorized personnel to review video files from workstations connected to the network.	

RTM Item #	Requirements Traceability Matrix (RTM)
176	The System shall provide role-based security and access control to the System.
177	The role definitions shall be configurable by the System Administrator.
178	The System shall be able to receive and apply modifications to role definitions from LAPD's Common Services Access Control System updated on a daily basis.
179	The System shall allow user access from each workstation through the LAN network. Web-based access preferred.
180	The System shall provide authentication control via LDAP integration, specifically eDirectory.
181	The System shall have the ability to authenticate against more than one LDAP source.
182	The System shall allow particular user roles to disable the automatic deletion of specific files past the retention period.
183	The System shall provide an email notification to the System Administrator when a user attempts to remove a video file from storage.
184	The System shall indicate in the chain of custody logs user attempts to remove a video file from storage.
185	The System shall include a case management functionality that allows the user the ability to associate videos from different vehicles to the same case. It is desirable to allow external data, such as photos and documents, to be associated to a case.
<i>The System shall allow the user to search for video files by the following criteria:</i>	
186	• Name
187	• Serial Number
188	• Date
189	• Time
190	• Vehicle Number
191	• Division
192	• File Name
193	• Location (mapping software only)
194	• Case Number
195	The System shall allow particular user roles to disallow access to a specific video or file.
196	The System shall allow software updates at workstations to be performed simultaneously through a centralized revision manager.
Back Office: Reports & Logs	
<i>The video management system shall be able to produce audit and usage reports in Windows readable format on the following details:</i>	
197	• Number of video hours by officer, vehicle, division, and department
198	• Number of videos by officer, vehicle, division, and department
199	• Vehicle-specific metadata
200	• Number of CD/DVDs created by incident, officer, division, and department
201	• Number of system log ins, video accesses, and file accesses per user
202	The back office storage shall be able to provide chain of custody audit logs detailing all activities related to video files.
<i>The chain of custody audit logs shall provide in Windows readable format the following details:</i>	

RTM Item #	Requirements Traceability Matrix (RTM)	
203	-	Name and/or ID of the user(s) transferring data
204	-	Date and time of transfer
205	-	Video file identification number per LAPD policy
206	-	Size of video file transferred
207	-	Number of copies made to other media
208	-	Type of media copies made
209	-	Retention period
210	-	Integrity check to validate transferred files are exact copies
211	-	Successful or failed transferred of a video file
212	-	Successful or failed connection for a wireless transfer
Back Office: Retrieval & Reproduction		
213	The System shall allow the user to retrieve a video without having the knowledge of the storage location of the video.	
	The System shall allow retrieval and replication of audio and video files onto an LAPD accepted media format, which include:	
214	-	Digital Video Disc (DVD)
215	-	Compact Disc (CD)
216	The System shall allow particular user roles to allow and disallow the retrieval and replication of specific audio and video files.	
217	The System shall be able to create multiple copies of the accepted media format. DVD carousel recommended.	
218	The System shall allow the option to super-impose the metadata on video files that have been retrieved.	
219	The System shall place a watermark or unique security identifier on videos.	
220	The System shall label each replicated media with a unique identifier.	
221	The System shall be capable of supporting multiple media replication devices.	
Evidence		
222	The System shall have the capability to convert the video files to .wmv Microsoft Windows media file format.	
223	The date and time stamps in the metadata shall be unaffected by any time irregularities in the System.	
224	The System shall allow the user to super-impose the metadata on the screen video playback.	
225	The System shall provide a mechanism to ensure consistent time stamps between the audio and video streams of the same source.	
226	The codec necessary for audio and video playback shall be provided.	
Storage		
227	The System shall use a fault-tolerant storage system.	
Storage: Local Station		
228	The System shall have the ability to store video files for sixty (60) days at the local stations based on the estimated usage in the RFP.	

RTM Item #	Requirements Traceability Matrix (RTM)
229	The System shall have a mechanism to verify that the transferred data is identical to the source prior to deletion from the source.
230	The System shall log at the area station storage the identification of the removable storage media to which a video file was recorded.
Storage: Data Center	
231	The System shall have the ability to store video files for five (5) years at the data center based on the estimated usage in the RFP.
Network	
232	Equipment and cabling systems facilitating wireless and hardwire transfer that are installed outdoors shall be placed in all-weather rated equipment enclosures.
233	The System shall provide network security for all points of access.
<i>The wireless network shall have the following features and configured as follows:</i>	
234	• Customized network name
235	• Disabled SSID/ESSID (Network name) broadcast
236	• Advance Encryption Standard (AES)
237	• Compliance with 802.11i/WPA2 Enterprise specifications or higher
238	• Strong wireless authentication at the level of security offered under 802.11x with PEAP or EAP-FAST
239	• Fully integratable into a Cisco Unified Wireless Network environment
System Health Monitoring	
<i>The System shall have the following health monitoring capabilities:</i>	
<i>Physical Infrastructure</i>	
240	• Hardware faults/error
241	• Network SLA/QOS
242	• Performance metrics
243	• Life cycle
<i>Application</i>	
244	• Backend and application errors
245	• System SLA/QOS
246	• Service status
247	• Heartbeats
248	• High availability (HA)
249	The notifications and alerts shall be configurable based on threshold levels and types.
250	The health reports shall be configurable based on content and frequency.
251	The System shall communicate critical alerts via email, TXT and SMS for Verizon, AT&T, Sprint, and T-Mobile

Appendix B: West Bureau Bill of Materials (BOM)

Table 5, West Bureau Vehicle BOM (351 cars plus 10% spares)

Part #	Description	Quantity
SYSED-03 SYSED-03-EDGE	TopCam "EDGE" - Monitor System Single Camera & Microphone 5.7" Touchscreen Monitor Smart Power Module 32 GB Internal Solid State Drive External 32 GB Solid State Removable Hard Drive Sony Camera 18 x Optical Wireless Microphone Transmitter and Receiver Covert Backseat Microphone Internal 802.11 a/g/n wireless card (optional WiMax) Three Year Limited Hardware Warranty	351
SCOPT-09 SCOPT-09-EDGE	Detached Wide Angle IR Camera (includes 1 - 12ft extension)	351
SCPKD-DRA-0400	Dual Microphone Receiver Module (Secondary sync station)	351
SCOPT-21 SCOPT-21-EDGE	Wireless - Dual Band 2.4 / 4.9 Vehicle Antenna (2 /vehicle for 802.11 N)	702
SCOPT-14 SCOPT-14-EDGE	Visor Mount Ethernet Port	351
SCMR-102 SCMR-102-EDGE	0.7x Wide Angle Adapter Lens	351
SCPKB-DRA-0100	Package B (Transmitter)	351
C-TTB-CV-F C-TTB-CV-F-EDGE	Havis Full Size Trunk Tray with Bearing for Crown Victoria	266
C-TTB-EG C-TTB-EG-EDGE	Havis Full Size Trunk Tray Option (Radio Mount Mesh)	266
ES42P-12VDC ES42P-12VDC-EDGE	GarrettComm Switch ES42P-12VDC	0
SCOPT-04 SCOPT-04-EDGE	Crash Sensor	351
SCOPT-60	GPS	351
Spare Units		
SYSED-03 SYSED-03-EDGE	TopCam "EDGE" - Monitor System Single Camera & Microphone 5.7" Touchscreen Monitor Smart Power Module 32 GB Internal Solid State Drive External 32 GB Solid State Removable Hard Drive Sony Camera 18 x Optical Wireless Microphone Transmitter and Receiver Covert Backseat Microphone Internal 802.11 a/g/n wireless card (optional WiMax) Three Year Limited Hardware Warranty	35
SCOPT-09 SCOPT-09-EDGE	Detached Wide Angle IR Camera (includes 1 - 12ft extension)	35
SCPKD-DRA-0400	Dual Microphone Receiver Module (Secondary sync station)	35
SCOPT-21 SCOPT-21-EDGE	Wireless - Dual Band 2.4 / 4.9 Vehicle Antenna (2 /vehicle for 802.11 N)	70
SCOPT-14 SCOPT-14-EDGE	Visor Mount Ethernet Port	35
SCMR-102 SCMR-102-EDGE	0.7x Wide Angle Adapter Lens	35
SCPKB-DRA-0100	Package B (Transmitter)	35

Part #	Description	Quantity
C-TTB-CV-F C-TTB-CV-F-EDGE	Havis Full Size Trunk Tray with Bearing for Crown Victoria	27
C-TTB-EG C-TTB-EG-EDGE	Havis Full Size Trunk Tray Option (Radio Mount Mesh)	27
ES42P-12VDC ES42P-12VDC-EDGE	GarrettComm Switch ES42P-12VDC	0
SCOPT-04 SCOPT-04-EDGE	Crash Sensor	35
SCOPT-60	GPS	35
In-Car Services (Installation)		
LINST-01 LINST-01-EDGE	In-Car System Installation / Car	351
LINST-02 LINST-02-EDGE	In-Car Trunk Tray Installation / Car	351
LSET-10 LSET-10-EDGE	Wireless Client Configuration	351
LSERV-03 LSERV-03-EDGE	Project Management	351
LTRN-05 LTRN-05-EDGE	Officer Training (1 Day / 2 Sessions)	1
Coban In-Car Maintenance & Support		
WMAIN-110 WMAIN-110-EDGE	Coban DVMS In-Car License with 5 Yr Maintenance	386
WARR-E45 WARR-E45-EDGE	Edge 4th and 5th year Extended Hardware Warranty / System	386
WARR-001 WARR-001-6mo-EDGE	Coban 6 Months On Site Service / System	351
WARR-001 WARR-001-24/7-EDGE	24/7, 4hr Response Time, 2nd Day Resolution / System / year (hrs)	1,755

Table 6, West Bureau: Additional Vehicle Kits (Qty 100)

Part #	Description	Quantity
SYSED-03 SYSED-03-EDGE	TopCam "EDGE" - Monitor System Single Camera & Microphone 5.7" Touchscreen Monitor Smart Power Module 32 GB Internal Solid State Drive External 32 GB Solid State Removable Hard Drive Sony Camera 18 x Optical Wireless Microphone Transmitter and Receiver Covert Backseat Microphone Internal 802.11 a/g/n wireless card (optional WiMax) Three Year Limited Hardware Warranty	100
SCOPT-09 SCOPT-09-EDGE	Detached Wide Angle IR Camera (includes 1 - 12ft extension)	100
SCOPT-03 SCOPT-03-EDGE	Dual Microphone Receiver Module (Secondary sync station)	100
SCPKD-DRA-0400	Wireless - Dual Band 2.4 / 4.9 Vehicle Antenna (2 /vehicle for 802.11 N)	200
SCOPT-14 SCOPT-14-EDGE	Visor Mount Ethernet Port	100

Part #	Description	Quantity
SCMR-102 SCMR-102-EDGE	0.7x Wide Angle Adapter Lens	100
SCPKB-DRA-0100	Package B (Transmitter)	100
C-TTB-CV-F C-TTB-CV-F-EDGE	Havis Full Size Trunk Tray with Bearing for Crown Victoria	0
C-TTB-EG C-TTB-EG-EDGE	Havis Full Size Trunk Tray Option (Radio Mount Mesh)	0
ES42P-12VDC ES42P-12VDC-EDGE	GarrettComm Switch ES42P-12VDC	0
SCOPT-04 SCOPT-04-EDGE	Crash Sensor	100
SCOPT-60	GPS	100
Coban In-Car License & Extended Warranty		
WMAIN-110 WMAIN-110-EDGE	Coban DVMS In-Car License with 5 Yr Maintenance	100
WARR-E45 WARR-E45-EDGE	Edge 4th and 5th year Extended Hardware Warranty / System	100

Table 7, West Bureau Option 2a: Additional Vehicle Kits (Qty 1, total including 100 in Table above cannot exceed 315 additional units)

Part #	Description	Quantity
SYSED-03 SYSED-03-EDGE	TopCam "EDGE" - Monitor System Single Camera & Microphone 5.7" Touchscreen Monitor Smart Power Module 32 GB Internal Solid State Drive External 32 GB Solid State Removable Hard Drive Sony Camera 18 x Optical Wireless Microphone Transmitter and Receiver Covert Backseat Microphone Internal 802.11 a/g/n wireless card (optional WiMax) Three Year Limited Hardware Warranty	1
SCOPT-09 SCOPT-09-EDGE	Detached Wide Angle IR Camera (includes 1 - 12ft extension)	1
SCPKD-DRA-0400	Dual Microphone Receiver Module (Secondary sync station)	1
SCOPT-21 SCOPT-21-EDGE	Wireless - Dual Band 2.4 / 4.9 Vehicle Antenna (2 /vehicle for 802.11 N)	2
SCOPT-14 SCOPT-14-EDGE	Visor Mount Ethernet Port	1
SCMR-102 SCMR-102-EDGE	0.7x Wide Angle Adapter Lens	1
SCPKB-DRA-0100	Package B (Transmitter)	1
C-TTB-CV-F C-TTB-CV-F-EDGE	Havis Full Size Trunk Tray with Bearing for Crown Victoria	0
C-TTB-EG C-TTB-EG-EDGE	Havis Full Size Trunk Tray Option (Radio Mount Mesh)	0
ES42P-12VDC ES42P-12VDC-EDGE	GarrettComm Switch ES42P-12VDC	0
SCOPT-04 SCOPT-04-EDGE	Crash Sensor	1

Part #	Description	Quantity
SCOPT-60	GPS	1
Coban In-Car Maintenance & Support		
WMAIN-110 WMAIN-110-EDGE	Coban DVMS In-Car License with 5 Yr Maintenance	1
WARR-E45 WARR-E45-EDGE	Edge 4th and 5th year Extended Hardware Warranty / System	1

Table 8, West Bureau Wireless BOM (5 Divisions)

Part #	Description	Quantity
AIR-CAP-1532E-A-K9	Cisco 802.11n Outdoor AP w/ Ext Ant Ports (5YR SMARTNET - 24x7x4)	42
AIR-ACC1530-PMK1	Cisco Wall mount kit for 153x Access Point	42
AIR-ANT2588P3M-N=	Cisco 8dBi dual band outdoor Patch Antenna	40
AIR-ANT2547V-N=	Cisco 7dBi dual band outdoor Omni Antenna	4
AIR-CT2504-15-K9	Cisco 2504 WLAN Controller 15 AP License (5YR SMARTNET - 24x7x4)	10
AIR-CT2504-RMNT=	Cisco 2504 Controller Rack Mount Kit	10
WS-C3750X-24P-S	Cisco Catalyst 3750x 24 Port Switch (5YR SMARTNET - 24x7x4)	14
GLC-SX-MM=	Cisco SFP Gigabit Optical Transceiver (5YR SMARTNET - 24x7x4)	14
TWS-195	TWS-195 Antenna Cable, Male to Male 3'	82
GL24WMS	Great Lakes 24" Wall Mount Cabinet -- 7219 Power Strip -- 7217WS Fan Assembly -- FFK1- Fan Filters	5
Wireless Services		
LSET-07 LSET-07-Wireless	DVMS Wireless Configuration / Station --AP Config --Switch Config --Controller Config --Wireless DVMS Server Config --Microwave Config --Bridge Config	5
LINST-06 LINST-06-Wireless	Wireless Cabling Hollywood- install 7 access points with antennas and 5 reels. Install 2 racks in MDF and one in IDF. Olympic- install 6 access points with antennas and 5 reels. Install 1 rack in MDF. Pacific - install 8 access points with antennas and 5 reels. Install 1 rack in MDF West LA - install 6 access points with antennas and 5 reels. Install 3 in MDF, IDF and MTD. Wilshire - install 11 access points with antennas and 5 reels, Install 3 rack in MDV, IDF and MTD. All exposed cable will be run in EMT. All cable will be ran to the racks and terminated to a 24port patch panel. At the Hollywood division for the light post a special outside plant cable will be utilized.	1
Power Installation	Electrical Power Redundant power outlets in MDF and IDF at all 5 divisions	1
Fiber Hollywood		
Fiber Hollywood (Not an option!)	Labor and material to install (1) 6 stand 62.5um indoor/outdoor fiber optic cable for the MDF to the IDF in the Narcotics building. Will terminate the fiber cable on SC fiber connectors and install (2) 1U rack mount fiber enclosures for the placement of the fiber optic cable. The fiber optic cabling will be tested bi-directional at dual wave lengths for length, continuity, polarity and optical loss using a fluke power meter.	1

Part #	Description	Quantity
Coban Professional Service		
LSERV-08 LSERV-08-Wireless	Technical Services. (hrs) --Wireless Design --Remote Service --Out of Scope Work	325

Table 9, West Bureau Back Office BOM (5 Divisions)

Part #	Description	Quantity
R-530 R-530-Back Office	PowerEdge R530 Server, No TPM ProSupport Plus: 5 Year Mission Critical 4Hr On-site Service Dell Proactive Systems Management - Declined No Installation Declined Remote Consulting Service US No Canada Ship Charge PowerEdge R530 Shipping No PCIe Riser Intel Ethernet I350 DP 1Gb Server Adapter, Low Profile On-Board Broadcom 5720 Quad Port 1Gb LOM iDRAC8, Basic 3.5" Chassis with up to 8 Hot Plug Hard Drives Bezel Power Saving Dell Active Power Controller RAID 1+RAID 5 for H330/H730/H730P (2 + 3-6 HDDs or SSDs) PERC H730 RAID Controller, 1GB NV Cache Intel® Xeon® E5-2620 v3 2.4GHz, 15M Cache, 8.00GT/s QPI, Turbo, HT, 6C/12T (85W) Max Mem 1866MHz Upgrade to Two Intel® Xeon® E5-2620 v3 2.4GHz, 15M Cache, 8.00GT/s QPI, Turbo, HT, 6C/12T (85W) (4) 4GB RDIMM, 2133MT/s, Single Rank, x8 Data Width 2133MT/s RDIMMs Performance Optimized (2) 500GB 7.2K RPM NLSAS 6Gbps 2.5in Hot-plug Hard Drive, 3.5in HYB CARR (5) 1TB 7.2K RPM NLSAS 6Gbps 2.5in Hot-plug Hard Drive, 3.5in HYB CARR Electronic System Documentation and OpenManage DVD Kit for R530 DVD+/-RW, SATA, Internal ReadyRails™ Static Rails for 2/4-post Racks Dual, Hot-plug, Redundant Power Supply (1+1), 750W (2) NEMA 5-15P to C13 Wall Plug, 125 Volt, 15 AMP, 10 Feet (3m), Power Cord, North America Keyboard and Optical Mouse, USB, Black, English No Operating System No Media Required 2 CPU Standard	10
SWITCH SWITCH-Back Office	Cisco Catalyst 3750X-24P-S - (WS-C3750X-24P-S) x 1 Cisco SmartNet (CON-SNTE-3750X2PS) x 5 Cisco 1000BASE-SX SFP (GLC-SX-MM=) x 1 BELKIN 500' FIBER OPTIC CABLE ST/ST (A2F20200-500) x 1	10
UPS UPS-Back Office	SMART UPS X 2200VA RT 100-127V LCD (A7121889) EXTERNAL BATTERY PACK FOR SMART UPS X RT 120V (A6818614) Basic Hardware Services: Business Hours (5X10) Next Business Day On Site Hardware Warranty Repair 4 Year Extend (933-1554) Dell Hardware Limited Warranty Initial Year (935-2197) Dell Hardware Limited Warranty Extended Year(s) (938-8378) Basic Hardware Services: Business Hours (5X10) Next Business Day On Site Hardware Warranty Repair Initial Year (996-4610) On-Site Installation Declined (900-9997)	10
RACK RACK-Back Office	Dell Net shelter SX 42U 600mm Wide x 1070mm Deep (A7545497) Basic: Business Hours (5X10) Next Business Day Parts Delivery 4 Year Extended (987-9524) Basic: Business Hours (5X10) Next Business Day Parts Delivery Initial Year (992-5090) Dell Hardware Limited Warranty Extended Year (993-4108) Dell Hardware Limited Warranty Initial Year (993-4117)	5
SCMIC-CHG10 SCMIC-CHG10-Back Office	Microphone Charging Bank	50
SYSTS-01 SYSTS-01-Back Office	Tech Support Kit	5
BUPL-01 BUPL-01-Back Office	Mobile HDD Up-Load Stand	10
WIR-11	CAT 5 w/ Retractable Cable Reel	25
Back Office License with Maintenance		

Part #	Description	Quantity
A5917735 / A5917706 A5917735 / A5917706- Back Office	MS SQL Server License / Server with 5 Cal SQL SVRSTD 2012 SNGL OLP NL (A5917735) (Use Dell P/N 2778317 to order through Dell) SQL CAL 2012 SNGL OLP NL DVCCAL (A5917706) x 5 (Use Dell P/N 2778311 to order through Dell)	10
A6362262 / A6362243 A6362262 / A6362243- Back Office	Windows Server 2012 Standard with 5 Devise Cal WIN SVR STD 2012 SNGL OLP NL 2 PROC (A6362262) (Use Dell P/N 2760279 to order through Dell) WIN SVRCAL 2012 SNGL NL DVCCAL (A6362243) (Use Dell P/N 2701830 to order through Dell)	10
WMAIN-111 WMAIN-111-Back Office	5 Yr. DVMS Back Office Software Enterprise Maintenance / Station	5
Back Office Services		
LINST-02 LINST-02-BACK OFFICE	Racking and Installation of Server, RAID, UPS and Switch / Station --Racking --Formatting HDD --Load and Config OS	10
LSET-03 LSET-03-Back Office	COBAN DVMS Configuration / Server --Load and Config SQL --Load and Config DVMS	10
LTRN-06 LTRN-06-Back Office	Admin Training	1
Coban Professional Service		
LSERV-08 LSERV-08-Back Office	Technical Services \$ 175.00 / HR. --Technical Consultation --Remote Service --Out of Scope Work --DVMS Client Deployment	325
Shipping		
LSHIP-01 LSHIP-01-Back Office	Shipping (Misc. Back Office Hardware)	4

Appendix C: RESERVED

Appendix D: RESERVED

Appendix E: West Bureau Notional Schedule

Statement of Work

LAPD Digital In-Car Video

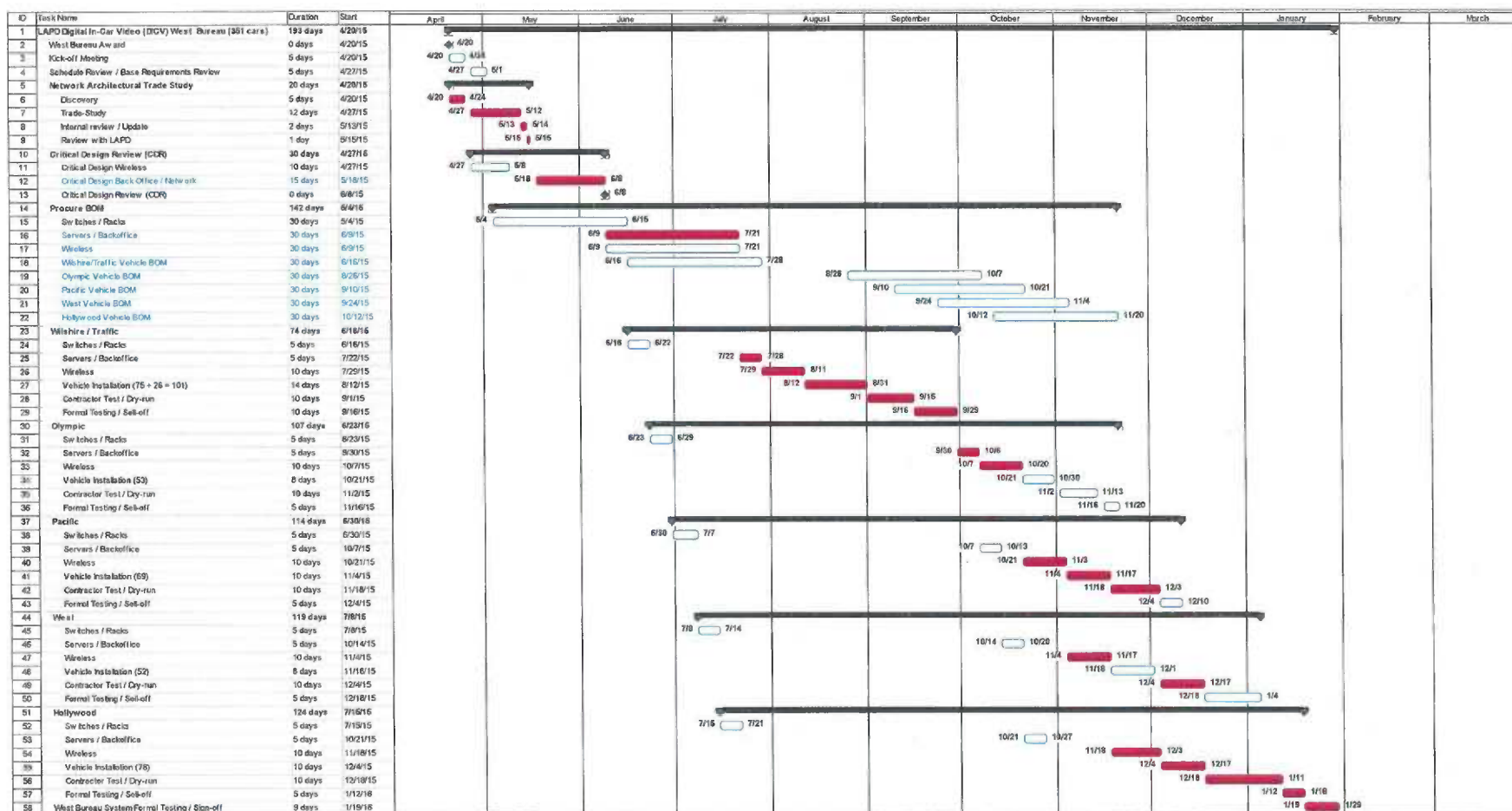


Figure 2, West Bureau Notional Schedule

Appendix F: Limited Warranty Statements

1. Coban

(Hardware Repair Service)

The following document details the COBAN Manufacturer Limited Warranty for the TOPCAM EDGE System. COBAN Technologies, Inc. ("COBAN") warrants the COBAN Manufactured TOPCAM EDGE System ("PRODUCT"), against defects in material and workmanship under normal use and service for a period of five (5) years and, such warranties shall begin when the PRODUCT is installed and accepted by the Original End User ("CLIENT"). This expressed Limited Warranty is extended by COBAN to the CLIENT purchasing the PRODUCT for purposes of governmental use only, and is not assignable or transferable to any other party. This is the complete warranty for the PRODUCT manufactured by COBAN and it does not warrant the installation, maintenance, support or service of the PRODUCT unless a separate written agreement is made between COBAN and CLIENT. Please refer to DVMS Maintenance Support Service Option for technical support and software support details.

WARRANTY COVERAGE

The warranty applies within all fifty (50) states of the United States of America. This Limited Warranty is null and void if the factory applied serial number or tamper evident labels have been damaged, altered or removed from the product. COBAN, at their discretion, will at no charge, repair the PRODUCT (with new or reconditioned parts), or replace it with the same or equivalent PRODUCT (using new or reconditioned products), during the warranty period, provided that the CLIENT notifies COBAN according to the terms of this warranty. The repaired or replaced PRODUCT is warranted for the remaining original applicable warranty period. All returned parts of the PRODUCT shall become the property of COBAN.

Items covered under this warranty:

- EDGE CPU / Encoder Module is covered for five (5) year under this warranty
- EDGE Display Module is covered for five (5) year under this warranty
- EDGE Power Supply Module is covered for five (5) year under this warranty
- EDGE Removable Hard Disk is covered for five (5) year under this warranty
- EDGE System Cables are covered for three five (5) under this warranty
- EDGE Wireless Microphone ("Mic.") Transmitter is covered for five (5) year under this warranty.
- EDGE Wireless Mic. Receiver is covered for five (5) year under this warranty.
- EDGE Primary Forward Facing Camera is covered for five (5) year under this warranty

WARRANTY LIMITATION

- EDGE System Wires is covered for six (6) months under this warranty.
- EDGE Power Supply Battery is covered for six (6) months under this warranty.
- EDGE Wireless Mic. Transmitter Pouch is covered for six (6) months under this warranty.
- EDGE Wireless Mic. Transmitter Battery is covered for six (6) months under this warranty.
- EDGE Wireless Mic. Transmitter Antenna is covered for six (6) months under this warranty.
- EDGE Wireless Mic. Receiver Antennas is covered for six (6) months under this warranty.
- EDGE Optional Peripheral Devices are covered for six (6) months under this warranty
- Coban will provide annual replacement Power Supply and Wireless Mic. Transmitter batteries for five (5) years. The LAPD will be wholly responsible for the management, logistics, and physical exchange of the batteries.

GENERAL WARRANTY PROVISIONS

This warranty sets forth the extent of COBAN'S responsibilities regarding the PRODUCT. Repair and replacement of the purchase price, at COBAN'S option, is an exclusive remedy.

THE WARRANTY IS GIVEN IN LIEU OF ALL OTHER EXPRESS WARRANTIES. COBAN DISCLAIMS ALL OTHER WARRANTIES OR CONDITIONS, EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL COBAN BE LIABLE FOR DAMAGES IN EXCESS OF THE ORIGINAL PURCHASE PRICE OF THE PRODUCT, FOR ANY LOSS OF USE, LOSS OF TIME, INCONVENIENCES, COMMERCIAL LOSS, LOST PROFITS, OR SAVINGS OR OTHER INCIDENTAL, SPECIAL, INDIRECT, OR CONSEQUENTIAL

DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT TO THE FULL EXTENT THAT MAY BE DISCLAIMED BY LAW

FORCE MAJEURE

COBAN shall not be liable for delays or failure to perform with respect to this agreement due to Force Majeure including (i) causes beyond the party's reasonable control and not avoidable by diligence, (ii) acts of God, epidemics, war, riots, or delays in transportation which are beyond the party's reasonable control and not avoidable by diligence, or (iii) inability for causes beyond its control and not avoidable by diligence to obtain necessary labor, materials, or manufacturing facilities, or delays caused by COBAN's due to similar causes. In the event of any such delay (each such event being beyond the party's reasonable control and not avoidable by diligence), the date of performance shall be extended for a period equal to the time lost by reason of the delay.

CLIENT'S RESPONSIBILITIES

It is the CLIENT responsibility to backup the contents of all hard drives, including any data that may be stored or software that may have been installed on the hard drive. It is possible that the contents of hard drives will be lost or that the drive may need to be reformatted in the course of service and as such COBAN will not be held liable for any damage to or loss of any program, data or other information stored on any media or any part of any PRODUCT serviced hereunder. It is HIGHLY recommended that the CLIENT create a valid disk "image" after final installation is completed. This image will need to be updated as changes are made to the units and kept safe by the CLIENT for data recovery purposes. COBAN assumes no liability or responsibility in developing a disaster recovery policy for the CLIENT. The CLIENT will perform any and ALL data reconstruction, unless specifically stated in the initial contract between COBAN and the CLIENT.

CLIENT'S REPRESENTATIVE

At all times during the term of this warranty, at least one (1) employee of the CLIENT shall be designated to act as Representative. Representative shall be responsible to react to all equipment problems, attempt troubleshoot to isolate the malfunction area, notify COBAN of the need for service and cooperate with COBAN to diagnose the problem over the telephone.

All initial RMA Requests MUST be called into COBAN's Tech Support line (281-277-8288 option 3) or entered via COBAN Customer Support Web Portal (<http://customer.COBANtech.com>).

Proof of a bill of sale or purchase order (which is evidence that the PRODUCT is within the warranty period) must be presented to obtain warranty service if requested.

RMA AND SHIPPING

If COBAN determines that all or part of the PRODUCT requires return for repair or replacement, a Return Merchandise Authorization Number (RMA NUMBER) will be issued. The CLIENT will return the PRODUCT to COBAN with the RMA Number clearly marked on the box. During the first ninety (90) days of deployment, COBAN will cover the cost of any RMA shipment to and from COBAN's maintenance facility. After the first one hundred eighty (180) days, the CLIENT will be responsible for shipping charges and to insure the product arrives at COBAN intact. COBAN will pay for return shipping, via Ground shipping services to return the repaired/serviced modules back to the CLIENT. Any expedited shipping requests will be the responsibility of and paid for by the CLIENT. Repair times for defective modules are objectives, not guarantees.

ADVANCE PLACEMENT / CROSS SHIP

If advance replacement / cross ship is required and the CLIENT wishes to receive the most expedient service available, the CLIENT will be required to provide COBAN with a credit card authorization to bill the CLIENT credit card in the event that the CLIENT fails to return the original parts. The credit card will only be charged for COBAN's list price for the part if the part has not been returned within ten (10) days.

Type of Card: _____

Credit Card Number: _____

Expiration Date: _____

OTHER INFORMATION**Unit Replacement**

Once a replacement component has been received, the CLIENT must relinquish the defective unit to COBAN. If the defective unit is not returned within fifteen (15) days, the CLIENT agrees to pay COBAN the cost for the replacement unit upon receipt of invoice. Failure to honor the invoice within fifteen (15) days after receipt will cause the cancellation of this Service Description Agreement and may result in other legal actions, including but not limited to suspending shipment of subsequent units and or replacement components.

Parts Ownership

All service parts removed from the CLIENT Supported System become the property of COBAN. The CLIENT will be obligated to pay at the current retail price(s) for any service parts removed from the CLIENT Supported

System and retained by the CLIENT. COBAN will use new and reconditioned parts made by various manufacturers in performing warranty repairs.

NON-WARRANTY SERVICES

Each warranty request pertaining to any item not covered under the EDGE Manufacture Limited Warranty shall be invoiced to the CLIENT at the agreed upon Time and Materials rate. Currently, COBAN charges \$ 125.00 per hour on non-warranty phone support and \$ 95.00 per hour on none warranty repair. COBAN Support Engineers are not authorized to service any third party hardware, software or vehicle issues.

COBAN will charge the CLIENT a \$ 95.00 service fee for any RMA units/components that are returned to COBAN as "non-warranty" items. Non Warranty items are defined under section titled ITEMS NOT COVERED UNDER THIS WARRANTY. Non-Warranty repair work will be billed separately from this service fee.

COBAN will charge the CLIENT a \$ 95.00 service fee for any RMA units/components that are returned to COBAN as "non-operational" that are in fact operational (i.e.: CPU units that have not been ghosted properly, scratched / hazy touch screen monitors, microphones missing parts such as: battery, internal seals, antennas, obvious misuse or damaged systems).

COBAN will obtain approval/direction for any billable service before repairs are initiated (i.e. devices not covered, repairs not covered, etc)

COMPLIANCE

FAILURE TO FOLLOW ANY OF THE ABOVE INSTRUCTIONS MAY RESULT IN DELAYS AND MAY CAUSE THE CLIENT TO INCUR ADDITIONAL CHARGES, OR MAY VOID WARRANTY.

IF DURING THE REPAIR OF THE PRODUCT, THE DATA STORED ON THE HARD DRIVE ARE ALTERED, DELETED, OR IN ANY WAY MODIFIED, COBAN IS NOT RESPONSIBLE WHATSOEVER TO RECOVER OR RESTORE SAID DATA. THE CLIENT'S PRODUCT WILL BE RETURNED TO THE CLIENT IN THE ORIGINAL MANUFACTURED CONFIGURATION (SUBJECT TO AVAILABILITY OF SOFTWARE).

ITEMS NOT COVERED UNDER THIS WARRANTY

This warranty does not cover periodically or consumed parts during the life of the product such as but not limited to batteries, cables and wires; loss or damage resulting from external causes such as damage resulting from dropping of the PRODUCT, collision with any object, fire, flooding, sand, dirt, windstorm, hail, earthquake or damage from exposure to weather conditions, misuse, abuse, damage resulting from improper use of any electrical source, power surges, damage occurring during transport.

This warranty does not cover ancillary equipment not furnished by COBAN, which may be attached to or used in connection with the PRODUCT, or for operation of the PRODUCT with any ancillary equipment. All such ancillary equipment is expressly excluded from this warranty.

All preventive maintenance recommended by COBAN to maintain the product in operating condition is the responsibility of the CLIENT; loss or damage resulting from failure to provide recommended maintenance is not covered under this contract.

1. On-site service
2. Triage and level one helpdesk phone support
3. De-installation or re-installation of product(s) or software application(s)
4. Warranty support or service for third party systems
5. Troubleshooting of applications or application compatibility issues
6. Data migration
7. Vehicle related issues such as electrical
8. Normal and customary wear and tear
9. Damage due to connection to improper voltage supply
10. PRODUCTS that has had the serial numbers removed or made illegible.
11. Systems that are non-operational due to abuse, neglect or improper usage for anything other than what the system was configured to do (not limited to dirt, debris, water damage or liquid of any type)
12. A PRODUCT subjected to unauthorized entry or opening of the COBAN module, monitor or forced removal of the MHDD and/or components.
13. A PRODUCT subjected to unauthorized PRODUCT modifications, disassemblies, or repairs (including, without limitation, the addition to the PRODUCT of non-COBAN supplied equipment) that adversely affect

performance of the PRODUCT or defects or damage from improper testing, operation, maintenance, installation alteration, modification, or adjustment.

14. A PRODUCT affected by virus, security breach, or other network related occurrence including but not limited to: installation of third party software applications, network security settings changes resulting in loss of communication, ability to properly use the system or configurations that deviate from the Original Master Gold Image.
15. A PRODUCT, which, due to illegal or unauthorized alteration of the software / firmware in the PRODUCT, does not function in accordance with COBAN, published specifications or with the FCC type acceptance labeling in effect for the PRODUCT at the time the PRODUCT was initially distributed from COBAN.
16. Scratches or other cosmetic damages to the Product's surfaces that do not affect the operation of the PRODUCT.

2. Dell

Terms of Sale

Dell's Reseller Terms of Sale (www.dell.com/resellerterms).

If this purchase includes services: in addition to the foregoing applicable terms, Dell's Service Terms (www.dell.com/servicecontracts/global).

PowerEdge R520

Mission Critical Package: 4-Hour 7x24 On-Site Service with Emergency Dispatch, 4 Year Extended (938-9514)

ProSupport: 7x24 HW / SW Tech Support and Assistance, 5 Year (938-9554)

Dell Hardware Limited Warranty Plus On Site Service Initial Year (939-9437)

MISSION CRITICAL PACKAGE: Enhanced Services, 5 Year (939-9467)

Dell Hardware Limited Warranty Plus On Site Service Extended Year (939-9677)

Dell ProSupport. For tech support, visit <http://support.dell.com/ProSupport> or call 1-800-945-3355 (989-3439)

Mission Critical Package: 4-Hour 7x24 On-Site Service with Emergency Dispatch, Initial Year (996-8351)

PowerEdge R720xd

Mission Critical Package: 4-Hour 7x24 On-Site Service with Emergency Dispatch, 4 Year Extended (934-5124)

ProSupport: 7x24 HW / SW Tech Support and Assistance, 5 Year (934-5164)

Dell Hardware Limited Warranty Plus On Site Service Initial Year (936-0967)

MISSION CRITICAL PACKAGE: Enhanced Services, 5 Year (936-0997)

Dell Hardware Limited Warranty Plus On Site Service Extended Year (939-3398)

Mission Critical Package: 4-Hour 7x24 On-Site Service with Emergency Dispatch, Initial Year (989-2641)

Dell ProSupport. For tech support, visit <http://support.dell.com/ProSupport> or call 1-800-945-3355 (989-3439)

PowerVault MD3060e

Dell Hardware Limited Warranty Initial Year (967-5361)

Dell Hardware Limited Warranty Extended Year(s) (967-5362)

Mission Critical Package: 4-Hour 7x24 On-Site Service with Emergency Dispatch, Initial Year (967-5399)

Mission Critical Package: 4-Hour 7x24 On-Site Service with Emergency Dispatch, 4 Year Extended (967-5404)

ProSupport: 7x24 HW / SW Tech Support and Assistance, 5 Year (967-5457)

MISSION CRITICAL PACKAGE: Enhanced Services, 5 Year (967-5471)

Dell ProSupport. For tech support, visit <http://support.dell.com/ProSupport> or call 1-800-945-3355 (989-3439)

SMART UPS X 2200VA

SP-04 1YR EWP (A1544721)

APC WEXTWAR1YR-SP-05 1-Year Extended Warranty
Renewal (A1563613)

Dell Smart-UPS 5000VA

APC WEXTWAR1YR-SP-05 1-Year Extended Warranty
Renewal (A1563613)

APC Extended Warranty Renewal - 1-Year (A7211875)

DELL EXT Run BATTERY

APC Extended Warranty Renewal - 1-Year (A7211875)

EXTERNAL BATTERY PACK FOR SMART UPS X RT 120V

(A6818614)

APC WEXTWAR1YR-SP-05 1-Year Extended Warranty
Renewal (A1563613)

3. Cisco

Hardware. Cisco Systems, Inc., or the Cisco Systems, Inc. subsidiary selling the Product ("Cisco") warrants that commencing from the date of shipment to Customer (and in case of resale by a Cisco reseller, commencing not more than ninety (90) days after original shipment by Cisco), and continuing for a period of the longer of (a) ninety (90) days or (b) the period set forth in the warranty card accompanying the Product (if any), the Hardware will be free from defects in material and workmanship under normal use. The date of shipment of a Product by Cisco is set forth on the packaging material in which the Product is shipped. This limited warranty extends only to the original user of the Product. Customer's sole and exclusive remedy and the entire liability of Cisco and its suppliers under this limited warranty will be, at Cisco's or its service center's option, shipment of a replacement within the warranty period and according to the replacement process described in the warranty card (if any), or if no warranty card, as described on the Cisco Product Warranties web page www.cisco.com/go/warranty or a refund of the purchase price if the Hardware is returned to the party supplying it to Customer, freight and insurance prepaid. Cisco replacement parts used in Hardware replacement may be new or equivalent to new. Cisco's obligations hereunder are conditioned upon the return of affected Hardware in accordance with Cisco's or its service center's then-current Return Material Authorization (RMA) procedures.

The End User License Agreement may be located below, or at the following URL:

www.cisco.com/go/eula

Product warranty terms and other information applicable to the Product may be located at the following URL:

www.cisco.com/go/warranty

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United States Federal Communications Commission Notice

The following information is for FCC compliance of Class A devices: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference, in which case users will be required to correct the interference at their own expense.

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If the equipment causes interference to radio or television reception, which can be determined by turning the equipment off and on, users are encouraged to try to correct the interference by using one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Modifications to this product not authorized by Cisco could void the FCC approval and negate your authority to operate the product.

Appendix G: COBAN Software License Statement